13.56 MHz Physical Access Contactless Technology "How to Order" Guide

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The most current version of this document is available for download at:
http://www.hidglobal.com/documents/1356mhz_htog_en.pdf

To check order status go to:
http://www.hidglobal.com > Knowledge Center > Customer Support > Customer Order Status.

For Contact cards, 3rd Party Contact-Chips and embeddable cards with or without contact chip, see the Logical Access How to Order Guide.

For Embedded products, see the Embedded How to Order Guide.

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Document History

Date	Author	Description	Version
11/17/10	DD, LD	- multiCLASS US Government FIPS201 w/Magstripe Ordering Page – added non-G3.0 Wiegand options. Changed RPK40 – FIPS201 from B to A revision.	D.5
10/26/10	DD	- EM4102 Format – update footnotes 3 and 4 - multiCLASS Magstripe Ordering Page - multiCLASS US Government FIPS201 w/Magstripe Ordering Page	D.4
09/07/10	DD	Revised MIFARE DESFire EV1 Ordering	D.3
08/18/10	DD	MIFARE EV1 Reader, iCLASS Reader Accessories: Configuration and Application Cards. Added MIFARE DESFire EV1, iCLASS Keyfob II, and iCLASS Elite	D.2

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Overview

Welcome to 13.56 MHz by HID. HID Global offers a variety of reader families that are compatible with most 13.56 MHz technologies existing in the market today. HID's primary 13.56 MHz product lines include iCLASS® and SmartID®.

iCLASS is the first advanced contactless smart card technology designed by and for the access control professional. iCLASS readers and cards offer your customer the highest quality card and reader system. The access control system is designed to both pass card data to an access control host, and perform read/write functionality in card non-access control areas.

SmartID is a highly customizable ISO14443 (MIFARE® / DESFire®) reader platform enabling the dynamic application fit new and existing populations of custom defined card data structures. Customize authentication keys, communication encryption, data location and length, data output and much more.

Making it easy for you to offer your customers exciting new products with enhanced benefits, HID has prepared this 13.56 MHz How to Order Guide.

This How to Order Guide provides information for:

- 13.56 MHz reader and module products
- 13.56 MHz credentials

iCLASS Reader Identifiers

The alpha designator within the product model indicates whether the reader is:

- READ ONLY (R)
- READ/WRITE (RW)
- READ ONLY/PROXIMITY (RP)
- READ ONLY WITH KEYPAD (RK)
- READ ONLY WITH KEYPAD/PROXIMITY (RPK)
- READ/WRITE WITH KEYPAD (RWK)
- READ ONLY WITH KEYPAD/LCD (RKL)
- READ/WRITE WITH KEYPAD/LCD (RWKL)
- READ ONLY WITH KEYPAD/LCD/BIOMETRICS (RKLB)
- READ/WRITE WITH KEYPAD/LCD/BIOMETRICS (RWKLB)
- READ ONLY WITH MAGNETIC (RM)
- READ ONLY WITH MAGNETIC/PROX (RMP)
- READ ONLY WITH MAGNETIC/KEYPAD (RMK)
- READ ONLY WITH MAGNETIC/PROX/KEYPAD (RMPK)

SmartID Reader Identifiers

The alpha designator indicates whether the reader is:

- READ ONLY (S)
- READ ONLY/PROXIMITY (SP)
- READ ONLY WITH KEYPAD (SK)
- READ ONLY WITH KEYPAD/PROXIMITY (SPK)

The following numeric designator signifies the physical size of the unit. (The smaller the number, the physically smaller the unit.)

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13.56 MHz Reader

iCLASS Read Only Readers

When your application requires the ability to read card numbers and output data using the standard Wiegand or Clock and Data protocols, use a read only (R series) iCLASS product.

R10 - Physically the smallest reader, the R10 is ideal for mullion mounted door installations. The R10 will read HID card formats from iCLASS cards, or the card serial number (CSN) from a MIFARE card, and delivers the information to an existing access control panel using industry standard Wiegand protocol.

R15 - The R15 is ideal for mullion mounted door installations. The R15 will read HID card formats from iCLASS cards, or the card serial number (CSN) from a MIFARE card. Delivering the information to an existing access control panel, the R15 uses industry standard Wiegand protocol.

R30 - This 8.5 cm (3.3") square reader is designed to mount to and cover standard EU and APAC back boxes. This reader has the same read only abilities as the R10 with the added features of a longer read range and built-in tamper magnet.

R40 - The R40 is designed to mount and cover single gang switch boxes primarily used in the United States and includes a slotted mounting plate for European and Asian back box spacing. It contains all the features of the R30 and offers longer read range.

iCLASS Keypad Readers

RK40 - This reader is the same size and shape as the R40. The 12-position weatherproof keypad features vandal-resistant metal keycaps and backlit numbering. The RK40 supports dual authentication of identity by combining card presentation and entry of a PIN. The PIN can be verified either at the access control panel or locally by the keypad reader. When verified locally, the PIN must be programmed into the iCLASS Card.

RKL55 / RWKL550 – This LCD/Keypad reader allows for dual-factor authentication in addition to user messages displayed on an LCD screen. The reader is designed to fit on a single gang switch box for US, EU or APAC usage. The reader is available in read only or read/write configuration.

iCLASS Multi-Technology Readers (multiCLASS®)

RP15 - The RP15 reader simultaneously supports HID and AWID or Indala proximity, iCLASS, MIFARE (CSN), and HID multi-technology credentials. The RP15 is ideal for mullion mounted door installations.

RP40 - The RP40 reader simultaneously supports HID and AWID or Indala proximity, iCLASS, MIFARE (CSN), and HID multi-technology credentials. The RP40's mounting plate attaches to US, EU or APAC back boxes with 52-60 mm screw hole spacing (vertical or horizontal), or to any flat surface. The reader body snaps onto the mounting plate and the cover snaps over the reader body, and then secured with a screw.

RPK40 – The RPK40 simultaneously supports HID and AWID or Indala proximity, iCLASS, MIFARE (CSN), and HID multi-technology credentials. Additionally, the RPK40 supports dual factor authentication of identity by combining card presentation and PIN entry. Either verify the PIN at the access control panel or locally by the keypad reader. When verified locally, program the PIN into the iCLASS Card. The RPK40's mounting plate attaches to US, EU or APAC back boxes with 52-60 mm screw hole spacing (vertical or horizontal), or to any flat surface. The reader body snaps onto the mounting plate and the cover snaps over the reader body, and then secured with a screw.

iCLASS Multi-Technology Readers with Magnetic Swipe Reader (multiCLASS)

All magnetic swipe multiCLASS readers consist of two-pieces including cover/electronics and mounting plate. The mounting plate has a built-in vertical swipe magnetic reader. Mount the magnetic swipe to the reader left or right. Mounting plate attaches to U.S. back box, 52-60 mm screw hole spacing (vertical or horizontal), or to any flat surface. Reader cover/electronics is secured to the mounting plate with a security screw. After the magnetic card migration has completed, increase security by replacing the built-in vertical swipe magnetic reader mounting plate with a standard mounting plate.

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RMK40 – The RMK40 simultaneously supports magnetic stripe, iCLASS, and HID multi-technology credentials. Additionally, the RMK40 supports dual factor authentication of identity by combining card presentation and PIN entry. Either verify the PIN at the access control panel or locally by the keypad reader using specially enrolled iCLASS credentials.

RMPK40 – The RMPK40 simultaneously supports magnetic stripe, Genuine HID Prox, AWID Prox, iCLASS, and HID multi-technology credentials. Additionally, the RMPK40 supports dual factor authentication of identity by combining card presentation and PIN entry. Either verify the PIN at the access control panel or locally by the keypad reader using specially enrolled iCLASS credentials.

iCLASS Biometric Readers (bioCLASS™)

RLB57 / RWKLB575 – This biometric LCD/Keypad reader allows for three-factor authentication using biometric finger authentication, keypad and card. User messages are displayed on an LCD screen. The reader is designed to fit on a single gang switch box for US, EU or APAC usage. The reader is available in read only or read/write configuration.

iCLASS Long Range Readers

R90 - The R90 is the largest size (12" or 30.5 cm square) and longest read range iCLASS contactless smart card reader in the iCLASS product line. The R90 will read HID card formats from iCLASS cards, delivering the information to an access control panel using industry standard Wiegand protocol.

iCLASS Reader/Writers

When your application requires the ability to read and write data to the card, use a read/write (RW series) iCLASS product. The four standard iCLASS reader/writers are:

RW100 - Physically the smallest reader/writer, the RW100 is ideal for mullion mounted door installations. The RW100 contains all the features of the R10, with the added features of read/write capability via RS232, RS485, UART or USB.

RW300 - This 80 mm (3.15") square reader is designed to mount to and cover standard EU and APAC back boxes. The RW300 contains all the features of the R30, with the added features of read/write capability via RS232, RS485, UART or USB.

RW400 - The RW400 is designed to mount to and cover single gang switch boxes primarily used in the US. The RW400 contains all the features of the R40, with the added features of read/write capability via RS232, RS485, UART or USB.

RWK400 - This reader/writer offers the same features as the RK40, with the extended ability to read/write user data to iCLASS credentials via RS-232, RS485, UART or USB.

iCLASS Programmer

The iCLASS CP400 & CP575A Card Programmers are designed for on-site programming of access control data, PIN codes, and user data onto HID iCLASS cards. The Card Programmer allows HID proximity formats, keypad PIN codes, and user data fields to be programmed directly into iCLASS contactless cards. The CP400 Card Programmer includes a desktop reader/writer, personalization diskette, universal power supply, and serial cable. The CP575A Card Programmer includes CP400 features with the added capability of programming biometric templates for use in the bioCLASS reader and includes a bioCLASS reader/writer, personalization diskette, universal power supply and USB cable. Ensuring security of the format and cards, required is an iCLASS Card Programmer license.

SmartID Readers

S10 – The S10 is ideal for mullion mounted door installations. Reading MIFARE (sector) or DESFire (application/file),card data, the S10 delivers the card data to an access control system using industry standard protocols, including Wiegand. Mount the reader on a single gang switch box for US, EU or APAC usage by ordering an additional mounting accessory.

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SmartID Keypad Readers

SK10 - The SK10 is ideal for mullion mounted door installations. The SK10 offers dual-factor authentication using keypad and card. Reading MIFARE (sector) or DESFire (application/file) card data, the SK10 delivers the card data to an access control system using industry standard protocols, including Wiegand. The reader can be mounted on a single gang switch box for US, EU or APAC usage by ordering an additional mounting accessory.

SmartID Multi-Technology Readers (SmartTRANS)

SP10 - The SP10 is ideal for mullion mounted door installations. The SP10 reads either 125 kHz HID Prox and AWID card formats in addition to MIFARE (sector) or DESFire (application/file) card data. The SP10 delivers the card data to an access control system using industry standard protocols, including Wiegand. Mount the SP10 on a single gang switch box for US, EU or APAC usage by ordering an additional mounting accessory.

SPK10 - The SPK10 is ideal for mullion mounted door installations. The SPK10 offers dual-factor authentication using keypad and card. The SPK10 reads either 125 kHz HID Prox and AWID card formats in addition to MIFARE (sector) or DESFire (application/file) card data. The reader will deliver the card data to an access control system using industry standard protocols including Wiegand. Mount the reader on a single gang switch box for US, EU or APAC usage by ordering an additional mounting accessory.

SmartID Biometric Readers (SmartTOUCH)

SB10 / SBK10 – This biometric reader comes with or without keypad and offers three-factor authentication using biometric finger authentication, keypad and card. The reader is designed for a mullion mount, but mount the biometric reader on a single gang switch box for US, EU or APAC usage by ordering an additional mounting accessory.

SmartID Reader/Writers

SW100 – The SW100 is ideal for mullion mounted door installations. Read/Write application supports T=CL (or legacy 3964) bi-directional serial protocol implemented over RS232, RS485 or RS422 physical link. Enables read/write to MIFARE and ISO14443-4 credentials (DESFire, SmartMX).

SWK100 – The SWK100 is ideal for mullion mounted door installations. Read/Write application supports T=CL (or legacy 3964) bi-directional serial protocol implemented over RS232, RS485 or RS422 physical link. Enables read/write to MIFARE and ISO14443-4 credentials (DESFire, SmartMX).

SWD100 – Desktop reader/writer connects to a computer through a USB or RS232. The hosts send commands to SWD100 in order to read/write data to MIFARE, DESFire and any other ISO14443-4 card through T=CL (RS232) or PC/SC (USB Only) protocols.

SmartID Programmer (SmartTOOLS)

SmartTOOLS is a card programming software suite providing custom access cards and configuration card programming of MIFARE cards.

ProxBurn is an access card programming component of SmartTOOLS. ProxBurn programs custom MIFARE cards for use on SmartID access control readers. The ProxBurn package includes a CD with software application and manuals, RS232 cable and SWD100 with RS232 interface.

ReaderTOOLS is a configuration card programming component of SmartTOOLS. ReaderTOOLS creates configuration cards configuring SmartID readers to perform custom access control applications against existing and new card populations with custom requirements. The ReaderTOOLS package includes a CD with software application and manuals, USB cable and SWD100 with USB interface.

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iCLASS Credentials

HID offers a full line of iCLASS credentials. When choosing a credential, there are several important decision points:

1. Which form factor (for example, card, key or tag) of credential best meets my needs?
2. Do I have a heavy duty card application or will I be laminating a patch to the card, which will require a composite card for best results?
3. Do I need a multi-technology credential (for example, iCLASS and proximity or iCLASS and Wiegand) to help leverage investments in existing access control systems while transitioning to new technologies or applications?
4. How much memory do I need (for example, 2k bits, 16k bits or 32k bits)?
5. How many application areas (2 or up to 16) do I need?

To help simplify the purchase of iCLASS credentials, all credentials are delivered pre-personalized with the default memory allocation and protection for the access control application. Within the part number, the numeric model number defines the technology, number of application areas and memory size.

All credentials come in two memory sizes, 2k bits (256 Bytes) with two application areas or 16k bits (2k Bytes) with two or sixteen application areas or 32k bits (4k Bytes) in two separate books. Application Area 1 is reserved by HID for access control use. The remaining application areas can be defined. Review the HID Application Note # 28 for more information about memory size and application areas.

Credentials are available in several form factors. You may request the correct memory size and/or application area configuration on any form factor. The form factor is not limiting. Offered form factors include:

iCLASS Clamshell cards – iCLASS Clamshell cards offer single-coil, read/write 13.56 MHz contactless smart card technology in a value-priced and highly-durable, molded ABS shell with customizable PVC label. The card is available in the 2K bit (256 byte) memory size only.

iCLASS Cards – Standard, 13.56 MHz single-coil, iCLASS cards will be manufactured to meet ISO standard dimensions. Personalize these cards by adding a photo ID, or barcode (These cards are also available with an optional magnetic stripe). For the iCLASS embeddable card, see the Logical Access How to Order Guide.

iCLASS Prox Cards – iCLASS Prox cards offer a dual technology solution (13.56 MHz contactless smart card technology and 125 kHz proximity technology) in a single card. Personalize these cards by adding a photo ID, or barcode (These cards are also available with an optional magnetic stripe). For the iCLASS Prox embeddable card, see the Logical Access How to Order Guide.

iCLASS Wiegand Cards – iCLASS Wiegand cards offer a dual technology solution (13.56 MHz contactless smart card technology and Wiegand strip technology) in a single card. Personalize these cards by adding a photo ID, or barcode (These cards are also available with an optional magnetic stripe).

iCLASS Key II – To enhance the read range and overall performance of the iCLASS key fob, the iCLASS Key has been redesigned. The iCLASS Key II has a solid black case with a blue molded plastic HID insert. The iCLASS Key II was designed to fit on your existing key ring or used with a standard badge-clip.

iCLASS Tags – An adhesive tag can be placed onto an existing credential to allow for an easy transition from legacy technologies to iCLASS . The tag can also be placed onto any non-metallic object. However, HID recommends that every application be tested before purchase to ensure compatibility.

iCLASS by HID. A new solution for the access control market that is Smart, Powerful and Trusted. Become acquainted with this technology. You will understand the difference you can make in your customers' ability to secure and manage their environments by offering iCLASS !

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Basics of Ordering iCLASS Contactless Smart Credentials

Each part number consists of a base number, to indicate the type of credential, and a number or letter to indicate each credential option. Each credential has a standard part number which includes default options, as indicated on the attached credential guides. When an order is placed for a credential, the base number and all options must be specified. If you require any options that are different from the default options, you must also indicate those options at the time the order is placed. All part numbers must be complete to be accepted by HID's order entry system.

All reader orders must have the following information:

- **BASE MODEL NUMBER**
- **STYLE**
- **READ RANGE**
- **TYPE**
- **COLOR**
- **OUTPUT FORMAT** (***reader's format or format number must also be given at time of order***)

All credential orders must have the following information:

• Base Part Number - Indicates type of credential
  - Standard PVC
  - Composite 40% Polyester/PVC (Recommended for long life applications or when applying an over-laminate)

• Memory Size and Allocation -
  0 - 2k Bits (256 Bytes) with 2 Application Areas
  1 - 16k Bits (2k Bytes) with 2 Application Areas
  2 - 16k Bits (2k Bytes) with 16 Application Areas
  3 - 32k Bits (4K Bytes) Application areas 16k/2+16k/1
  4 - 32k Bits (4K Bytes) Application areas 16k/16+16k/1

• Programming - Indicates whether the credential is programmed at the factory by HID or programmed by you with an HID iCLASS card programmer. If the credential is ordered non-programmed, an HID iCLASS card programmer must be used for programming. (Contact an HID sales representative for iCLASS card programmer eligibility).

• Front Packaging - Indicates standard or custom artwork and type of finish.
• Back Packaging - Indicates standard or custom artwork and type of finish.
• iCLASS Credential Numbering - Internal 13.56 MHz programmed number and visible external credential number.
• Slot Punch
• Optional 125 kHz Proximity or Wiegand Credential Numbering - Internal 125 kHz Proximity or Wiegand programmed number and visible external credential number.

All orders for custom artwork credentials must have the following information:

• Custom Artwork Number (Call your Customer Service Representative if number is not available)

In addition, all credential orders must have the following programming information:

• Bit Format(s)
• Facility Code(s)
• Internal and External Start Numbers
• Internal PIN Code (Length: 2 – 12 Digits)
• iCLASS Elite Programming Information (If Applicable)
• Any Special Instructions

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Credentials

200/210 - iCLASS Card Ordering Guide

The iCLASS contactless smart card offers read/write capability. Personalize the card with a photo ID, magnetic stripe, barcode, or anti-counterfeiting element.

Ensure each required option has been checked with the appropriate choice to fulfill a completed order form.

Base Model ☐ *200 Standard PVC* ☐ *210 Composite 40% Polyester / PVC**

iCLASS Memory Size and Allocation (Check One)

- ☐ 0 - 2k Bits (256 Bytes) with 2 Application Areas
- ☐ 1 - 16k Bits (2k Bytes) with 2 Application Areas
- ☐ 2 - 16k Bits (2k Bytes) with 16 Application Areas
- ☐ 3 - 32k Bits (4K Bytes) Application areas 16k/2+16k/1
- ☐ 4 - 32k Bits (4K Bytes) Application areas 16k/16+16k/1

Programming (Check One)

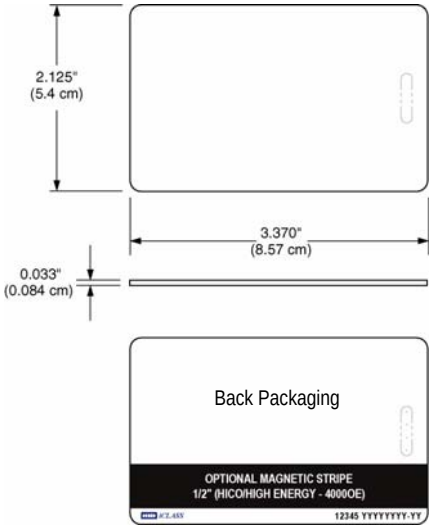
- ☐ C - Configured, Non-Programmed iCLASS. Programming Information Not Required.
- ☐ P - Programmed iCLASS. Specify Programming Information.

Front Packaging (Check One)

- ☐ G - Plain White with Gloss Finish
- ☐ C - Custom Artwork with Gloss Finish – Specify Custom Artwork Number[1]

Back Packaging (Check One)

- ☐ G - Plain White with Gloss Finish[2]
- ☐ C - Custom Artwork with Gloss Finish – Specify Custom Artwork Number[1]
- ☐ 1 - Plain White with Gloss Finish with Magnetic Stripe[2]
- ☐ 3 - Custom Artwork with Gloss Finish with Magnetic Stripe - Specify Custom Artwork Number[1]



Card Numbering[3] (Check One)

- ☐ M - Sequential Matching Internal/External (Inkjetted)
- ☐ N - No External Card Numbering
- ☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
- ☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)
- ☐ A - Sequential Matching Internal/External (Laser Engraved)[4]
- ☐ B - Sequential Internal/Sequential Non-Matching External (Laser Engraved)[4]
- ☐ C - Random Internal/Non-Matching Sequential External (Laser Engraved)[4]

Slot Punch[5] (Check One)

- ☐ N - No Slot Punch (Printed location of vertical slot punch will remain)
- ☐ V - Vertical Slot Punch
- ☐ B - No Slot Punch - Horizontal Punch compatible (Printed location of Vertical and Horizontal slot punch will remain). [6]
- ☐ H - Horizontal Slot Punch [6]

12345 = Card ID Number
YYYYYYYY-YY = Sales Order Number

Option - Custom Artwork[1]

☐ _____ (*Specify Artwork Number – Refer to the Custom Artwork Forms for new artwork*)

Enter your final card options from check boxes above. Example: 2001CGGNN

Final Part Number								-	(*Options #*)

iCLASS Card Programming Information

Bit Numbers _____. (*example: 26 bit)* Format Number _____ (*example: H10301*)

Facility Code _____.

iCLASS Elite ICE Number (if applicable) - _____.
(Custom Formats) Site Code _____. City Code _____. OEM Code _____.

Internal Card # Start _____. Stop _____. External Card # Start _____. Stop _____.

PIN (2-12 digits) : ☐ Sequential: Start # _____ ☐ Random: Length _____.

Special Instructions: _____.

[1] For new artwork files, contact Customer Service for custom artwork number, lead-times, and cost. [2] Cards ordered with plain white front and back packaging, or custom artwork, will still have a small "HID logo" "HID" and reference number printed in the lower left-hand corner and a slot punch target printed on the back of the card. [3] The external card number is placed in the bottom right-hand corner on the back of the card. [4] For Laser Engraved external numbers, consult factory for lead times and cost. [5] Cards are provided with an optional slot punch at no additional charge. Some video imaging printers cannot accommodate pre-slot punched cards. [6] The ability to add a horizontal slot punch requires a different iCLASS antenna design. Users can expect a read range reduction of approximately 20% if they order options B or H for the Slot Punch. * The composite construction is recommended for all cards with over-laminate applied. Consult with the printer manufacturer prior to ordering.

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202/212 - Combination Card (iCLASS / Prox) Ordering Guide

The iCLASS Prox contactless smart card offers read/write and HID proximity capability in a single card. Add new applications while leveraging your investment in existing access control systems. Personalize the card with a photo ID, magnetic stripe, barcode, or anti-counterfeiting element.

Ensure each required option has been checked with the appropriate choice to fulfill a completed order form.

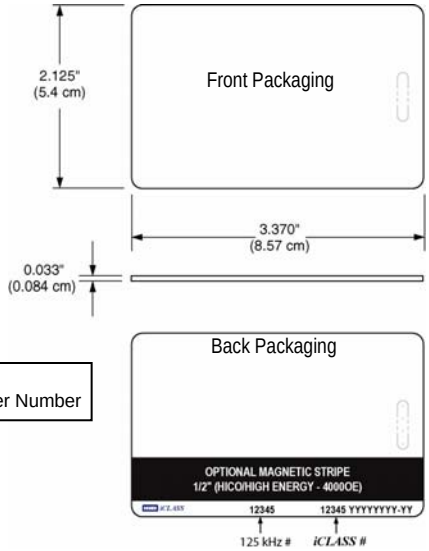
Base Model ☐ *202 Standard PVC* ☐ *212 Composite 40% Polyester / PVC **

iCLASS *Memory Size and Allocation (Check One)*

- ☐ 0 - 2k Bits (256 Bytes) with 2 Application Areas
- ☐ 1 - 16k Bits (2k Bytes) with 2 Application Areas
- ☐ 2 - 16k Bits (2k Bytes) with 16 Application Areas
- ☐ 3 - 32k Bits (4K Bytes) Application areas 16k/2+16k/1
- ☐ 4 - 32k Bits (4K Bytes) Application areas 16k/16+16k/1

iCLASS Programming (Check One)

- ☐ C - Configured, Non-Programmed iCLASS & initialized 125 kHz Proximity. Programming Information Not Required.
- ☐ A - Configured, Non-Programmed iCLASS, Programmed 125 kHz Proximity. Specify Programming Information.
- ☐ P - Programmed iCLASS only and Prox initialized. Specify Programming Information.
- ☐ B - Programmed 125 kHz Proximity and iCLASS. Specify Programming Information -



Front Packaging (Check One)

- ☐ G - Plain White with Gloss Finish
- ☐ C - Custom Artwork with Gloss Finish – Specify Custom Artwork Number[1]

12345 = Card ID Number
YYYYYYYY-YY = Sales Order Number

Back Packaging (Check One)

- ☐ G - Plain White with Gloss Finish[2]
- ☐ C - Custom Artwork with Gloss Finish – Specify Custom Artwork Number[1]
- ☐ 1 - Plain White with Gloss Finish with Magnetic Stripe[2]
- ☐ 3 - Custom Artwork with Gloss Finish with Magnetic Stripe - Specify Custom Artwork Number[1]

iCLASS *Card Numbering[3] (Check One)*

- ☐ M - Sequential Matching Internal/External (Inkjetted)
- ☐ N - No External Card Numbering
- ☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
- ☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)
- ☐ A - Sequential Matching Internal/External (Laser Engraved)[4]
- ☐ B - Sequential Internal/Sequential Non-Matching External (Laser Engraved)[4]
- ☐ C - Random Internal/Non-Matching Sequential External (Laser Engraved)[4]

Slot Punch[5] (Check One)

- ☐ N - No Slot Punch (Printed location of vertical slot punch will remain)
- ☐ V - Vertical Slot Punch

125 kHz Card Numbering[3] (Check One)

- ☐ M - Sequential Matching Internal/External (Inkjetted)
- ☐ N - No External Card Numbering
- ☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
- ☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)
- ☐ A - Sequential Matching Internal/External (Laser Engraved)[4]
- ☐ B - Sequential Internal/Sequential Non-Matching External (Laser Engraved)[4]
- ☐ C - Random Internal/Non-Matching Sequential External (Laser Engraved)[4]

Option - Custom Artwork[1]

☐ _____ (*Specify Artwork Number – Refer to the Custom Artwork Forms for new artwork*)

Enter your final card options from the above selections. Example: 2022LGGNNM

Final Part Number										-	(*Options #*)

iCLASS Programming Information

Bit Numbers _____. (*example: 26 bit*)
Format Number _____ (*example: H10301*)
Facility Code _____.
iCLASS Elite ICE Number (if applicable) - _____.
(Custom Formats) Site Code _____. City Code _____.
OEM Code _____.
Internal Card No. Start _____. Stop _____.
External Card No. Start _____. Stop _____.
PIN: ☐ Sequential: Start # _____ ☐ Random: Length _____.

125 kHz Programming Information

Bit Numbers _____. (*example: 26 bit*)
Format Number _____ (*example: H10301*)
Facility Code _____.
(Custom Formats) Site Code _____. City Code _____.
OEM Code _____.
Internal Card No. Start _____. Stop _____.
External Card No. Start _____. Stop _____.
Special Instructions: _____.

[1] For new artwork files, contact Customer Service for custom artwork number, lead-times, and cost. [2] Cards ordered with plain white front and back packaging, or custom artwork, will still have a small "HID logo" "HID" and reference number printed in the lower left-hand corner and a slot punch target printed on the back of the card. [3] The external card number is placed in the bottom right-hand corner for iCLASS 13.56 MHz and in the bottom center for 125 kHz Proximity on the back of the card. [4] For Laser Engraved external numbers, consult factory for lead times and cost. [5] Cards are provided with an optional slot punch at no additional charge. Some video imaging printers cannot accommodate pre-slot punched cards.
* The composite construction is recommended for all cards with over-laminate applied. Consult with the printer manufacturer prior to ordering.

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204 - iCLASS Wiegand Card Ordering Guide

The iCLASS Wiegand contactless smart card offers read/write and Wiegand strip capability in a single card. Add new applications and/or use a transition card during upgrades from Wiegand to iCLASS.

Ensure each required option has been checked with the appropriate choice to fulfill a completed order form.

Base Model ☒ *204 Standard PVC*

iCLASS Memory Size and Allocation (Check One)

- ☐ 0 - 2k Bits (256 Bytes) with 2 Application Areas
- ☐ 1 - 16k Bits (2k Bytes) with 2 Application Areas
- ☐ 2 - 16k Bits (2k Bytes) with 16 Application Areas
- ☐ 3 - 32k Bits (4K Bytes) Application areas 16k/2+16k/1
- ☐ 4 - 32k Bits (4K Bytes) Application areas 16k/16+16k/1

Programming (Check One)

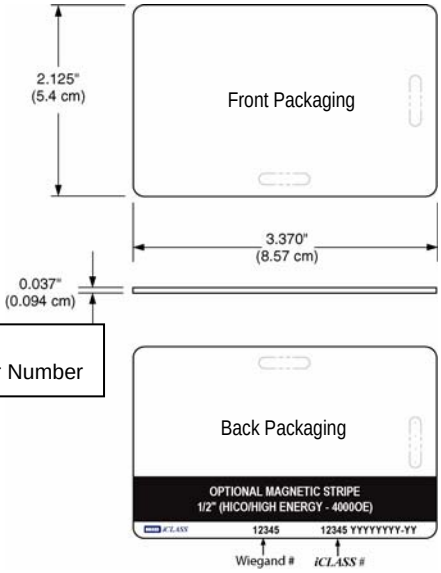
- ☐ C - Configured, Non-Programmed iCLASS. Programming Information Not Required.
- ☐ P - Programmed iCLASS. Specify Programming Information.

Front Packaging (Check One)

- ☐ G - Plain White with Gloss Finish
- ☐ C - Custom Artwork with Gloss Finish – Specify Custom Artwork[1]

Back Packaging (Check One)

- ☐ G - Plain White with Gloss Finish[2]
- ☐ C - Custom Artwork with Gloss Finish – Specify Custom Artwork Number[1]
- ☐ 1 - Plain White with Gloss Finish with Magnetic Stripe[2]
- ☐ 3 - Custom Artwork with Gloss Finish with Magnetic Stripe – Specify Custom Artwork Number[1]



iCLASS Card Numbering[3] (Check One)

12345 = Card ID Number
YYYYYYYY-YY = Sales Order Number

- ☐ M - Sequential Matching Internal/External (Inkjetted)
- ☐ N - No External Card Numbering
- ☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
- ☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)
- ☐ A - Sequential Matching Internal/External (Laser Engraved)[4]
- ☐ B - Sequential Internal/Sequential Non-Matching External (Laser Engraved)[4]
- ☐ C - Random Internal/Non-Matching Sequential External (Laser Engraved)[4]

Slot Punch[5] (Check One)

- ☐ N - No Slot Punch (Printed location of vertical slot punch will remain)
- ☐ V - Vertical Slot Punch

Wiegand Card Numbering[3] (Check One)

- ☐ M - Sequential Matching Internal/External (Inkjetted)
- ☐ N - No External Card Numbering
- ☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
- ☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)
- ☐ A - Sequential Matching Internal/External (Laser Engraved)[4]
- ☐ B - Sequential Internal/Sequential Non-Matching External (Laser Engraved)[4]
- ☐ C - Random Internal/Non-Matching Sequential External (Laser Engraved)[4]

Wiegand Style & Bit - Number of Bits in Code Strip (XX = Bit # between 8 and 44) (Check One)

- ☐ XXA1 - Strip toward left edge of card
- ☐ XXA - Strip toward right edge of card

Option - Custom Artwork[1]

- ☐ _____ (*Specify Artwork Number – Refer to the Custom Artwork Forms for new Artwork*)

Enter your final card options from check boxes above. Example: 2042PGGMNM26A1

Final Part Number	204									-	(*Options #*)

iCLASS Programming Information

Bit Numbers _____. (*example: 26 bit*)
Format Number _____ (*example: H10301*)
Facility Code _____.
iCLASS Elite ICE Number (If Applicable) _____.
(Custom Formats) Site Code _____. City Code _____.
OEM Code _____.
Internal Card No. Start _____. Stop _____.
External Card No. Start _____. Stop _____.
PIN: ☐ Sequential: Start # _____ ☐ Random: Length _____.

Wiegand Programming Information

Bit Numbers _____. (*example: 26 bit*)
Format Number _____ (*example:* CC2601)
Facility Code _____.
(Custom Formats) Site Code _____. City Code _____.
OEM Code _____.
Internal Card No. Start _____. Stop _____.
External Card No. Start _____. Stop _____.
Special Instructions: _____.

[1] For new artwork files, contact Customer Service for custom artwork number, lead-times, and cost. [2] Cards ordered with plain white front and back packaging, or custom artwork, will still have a small "HID logo" "HID" and reference number printed in the lower left-hand corner and a slot punch target printed on the back of the card. [3] The external card number is placed in the bottom right-hand corner for iCLASS 13.56 MHz and in the bottom center for Wiegand on the back of the card. [4] For Laser Engraved external numbers, consult factory for lead times and cost. [5] Cards are provided with an optional slot punch at no additional charge. Some video imaging printers cannot accommodate pre-slot punched cards. Consult with the printer manufacturer prior to ordering.

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205 - iCLASS Key Ordering Guide

The iCLASS contactless smart Key offers read/write capability. Attach to a key ring or badge clip for convenient use.
Ensure each required option has been checked with the appropriate choice to fulfill a completed order form.

☒ *205 Base Model* Part Number Worksheet

iCLASS Memory Size and Allocation (Check One)

- ☐ 0 - 2k Bits (256 Bytes) with 2 Application Areas
- ☐ 1 - 16k Bits (2k Bytes) with 2 Application Areas
- ☐ 2 - 16k Bits (2k Bytes) with 16 Application Areas
- ☐ 3 - 32k Bits (4K Bytes) Application areas 16k/2+16k/1
- ☐ 4 - 32k Bits (4K Bytes) Application areas 16k/16+16k/1

Programming (Check One)

- ☐ C - Configured, Non-Programmed iCLASS. Programming Information Not Required.
- ☐ P - Programmed iCLASS. Specify Programming Information.

Front Packaging

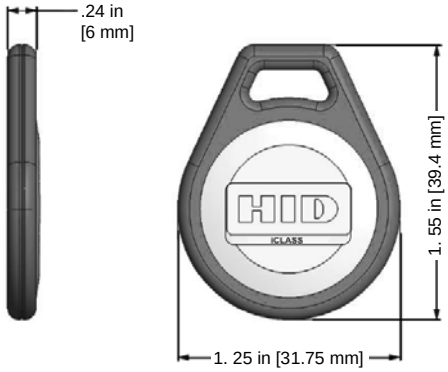
- ☐ K – iCLASS Key - Black with HID Standard Artwork (Reorders only)
- ☐ N – iCLASS Key II - Black with blue insert. Includes HID Standard Artwork

Back Packaging

- ☒ N - None

Key Numbering[1]

- ☐ M - Sequential Matching Internal/External (Inkjetted)
- ☐ N - No External Key Numbering
- ☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
- ☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)
- ☐ A - Sequential Matching Internal/External (Engraved)[2]
- ☐ B - Sequential Internal/Sequential Non-Matching External (Engraved)[2]
- ☐ C - Random Internal/Non-Matching Sequential External (Engraved)[2]



Shown – Front Packaging Option N

Additional Options[3]

- ☒ N - None

Enter your final card options from the above selections. Example: 2052PNNMN

Final Part Number	205				N		N

iCLASS Key Programming Information

Bit Numbers _____. (*example: 26 bit)* Format Number _____ (*example: H10301*)

Facility Code _____.

iCLASS Elite Ice Number (if applicable)_____.
(Custom Formats) Site Code _____. City Code _____. OEM Code _____.

Internal Card # Start _____. Stop _____. External Card # Start _____. Stop _____.

PIN: ☐ Sequential: Start # _____ ☐ Random: Length _____.

Special Instructions: _____.

[1] The external key number is placed on the back of the key.
[2] For Laser Engraved external numbers, consult factory for lead times and cost.
[3] Key Ring sold separately (Part Number: 57-0001-02) .

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206 - iCLASS Tag Ordering Guide

The iCLASS contactless smart Tag offers read/write capability. iCLASS enable existing credentials or non-metallic devices such as cell phones or PDAs by adhering the iCLASS Tag.

Ensure each required option has been checked with the appropriate choice to fulfill a completed order form.

☒ *206 Base Model* Part Number Worksheet

iCLASS *Memory Size and Allocation (Check One)*

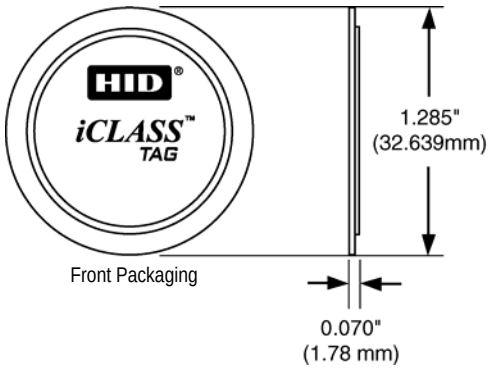
- ☐ 0 - 2k Bits (256 Bytes) with 2 Application Areas
- ☐ 1 - 16k Bits (2k Bytes) with 2 Application Areas
- ☐ 2 - 16k Bits (2k Bytes) with 16 Application Areas
- ☐ 3 - 32k Bits (4K Bytes) Application areas 16k/2+16k/1
- ☐ 4 - 32k Bits (4K Bytes) Application areas 16k/16+16k/1

Programming (Check One)

- ☐ C - Configured, Non-Programmed iCLASS**.** Programming Information Not Required.
- ☐ P - Programmed iCLASS. Specify Programming Information.

Front Packaging (Check One)

- ☐ S - Gray with HID Standard Artwork
- ☐ K - Black with HID Standard Artwork
- ☐ C - Custom Artwork – Specify Custom Artwork Number[2]



Front Packaging

Back Packaging

- ☒ S - Adhesive Backing

Tag Numbering[1](Check One)

- ☐ M - Sequential Matching Internal/External (Inkjetted)
- ☐ N - No External Tag Numbering
- ☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
- ☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)

Slot Punch

- ☒ N - None

Option - Custom Artwork[1]

- ☐ _____ (*Specify Artwork Number – Refer to the Custom Artwork Forms for new artwork*)

Enter your final Tag options from check boxes above. Example: 2062CSSNN

Final Part Number	206				S		N	-	(*Options #*)

iCLASS Tag Programming Information

Bit Numbers _____. (*example: 26 bit)* Format Number _____ (*example: H10301*)

Facility Code _____.

iCLASS Elite ICE Number (if applicable) - _____.
(Custom Formats) Site Code _____. City Code _____. OEM Code _____.

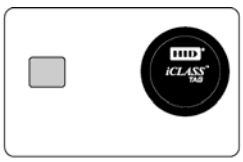
Internal Card # Start _____. Stop _____. External Card # Start _____. Stop _____.

PIN: ☐ Sequential: Start # _____ ☐ Random: Length _____.

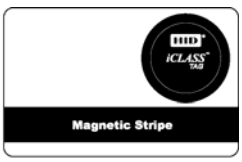
Special Instructions: _____.

[1] The external tag number is placed on the back of the tag. [2] For new artwork files, contact Customer Service for custom artwork number, lead-times, minimum order quantities, and cost. [3] The iCLASS Tag is not for use on cards that use full insertion or tractor feed type readers.

Do not adhere to metal surfaces. Metal shields the RF, making the tag inoperable. Due to variations in cards and reading devices, HID does not claim that the iCLASS Tag will work in every situation. Functional and non-functional iCLASS Tags are available for compatibility testing with existing credential and reader technologies. Compatibility should be confirmed prior to ordering.



Contact Smart Chip



Magnetic Swipe card

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208 - iCLASS Clamshell Card Ordering Guide

The iCLASS contactless smart card offers read/write capability.

Ensure each required option has been checked with the appropriate choice to fulfill a completed order form.

☒ *208 Base Model* Part Number Worksheet

iCLASS *Memory Size and Allocation (Check One)*

☒ 0 - 2k Bits (256 Bytes) with 2 Application Areas

Programming (Check One)

☐ C - Configured, Non-Programmed iCLASS. Programming Information Not Required.
☐ P - Programmed iCLASS. Specify Programming Information.

12345 = Card ID Number
YYYYYYYY-YY = Sales Order Number

Front Packaging (Check One)

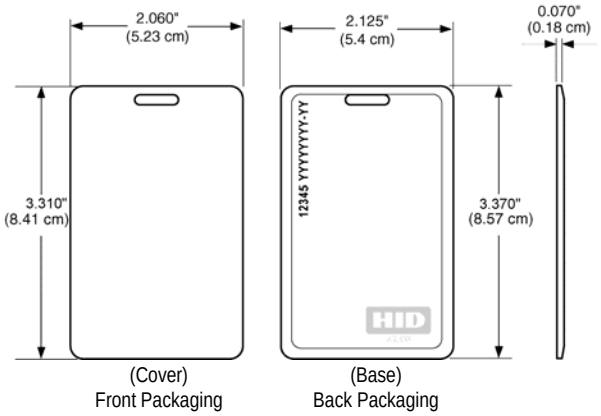
☐ M - Plain White Vinyl with Matte Finish
☐ G - Plain White with Gloss Finish
☐ A - iCLASS Clamshell - Adhesive Front[1]
☐ C - Custom Artwork - Specify Custom Artwork Number[2]

Back Packaging (Check One)

☐ S - Base with Molded HID Logo
☐ C - Custom Artwork - Specify Custom Artwork Number[2]

Card Numbering[3] (Check One)

☐ M - Sequential Matching Internal/External (Inkjetted)
☐ N - No External Card Numbering
☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)



Slot Punch[5] (Check One)

☒ V - Vertical Slot Punch

Option - Custom Artwork[2]

☐ _____ (*Specify Artwork Number – Refer to the Custom Artwork Forms for new Artwork*)

Enter your final card options from check boxes above. Example: 2080PGSMV

Final Part Number	208	0					V	-	(*Options #*)

iCLASS Card Programming Information

Bit Numbers _____. (*example: 26 bit)* Format Number _____ (*example: H10301*)

Facility Code _____.

iCLASS Elite ICE Number (if applicable) _____.
(Custom Formats) Site Code _____. City Code _____. OEM Code _____.

Internal Card # Start _____. Stop _____. External Card # Start _____. Stop _____.

PIN (2-12 digits): ☐ Sequential: Start # _____ ☐ Random: Length _____.

Special Instructions: _____.

[1] The part numbers for non-adhesive labels to be used with the iCLASS Clamshell with the adhesive front are 1324GGN31 without slot and 1324GGV31 with slot.
[2] For new artwork files, contact Customer Service for custom artwork number, lead-times, and cost.
[3] The external card number is placed in the top left-hand corner on the back of the card. HID logo molded into base on back.

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1430/1440/1436/1446 – MIFARE® Card Ordering Guide

Ensure each required option has been checked with the appropriate choice to fulfill a completed order form.

Base Model	☐ *1430 (1K) Standard PVC*	☐ *1440 (4K) Standard PVC*
Base Model	☐ *1436 (1K) Composite 40% Polyester / PVC **	☐ *1446 (4K) Composite Polyester 40% / PVC **

Programming (Check One)

☐ M - Programmed, HID MIFARE [6] (Specify HID format, for example H10301).
☐ N - Non-Programmed (13.56 MHz)[6]. Programming Information Not Required.
☐ S - Custom Programmed, Specify Programming Information.

Front Packaging (Check One)

☐ G - Plain White with Gloss Finish
☐ C - Custom Artwork with Gloss Finish – Specify Custom Artwork Number[1]

Back Packaging (Check One)

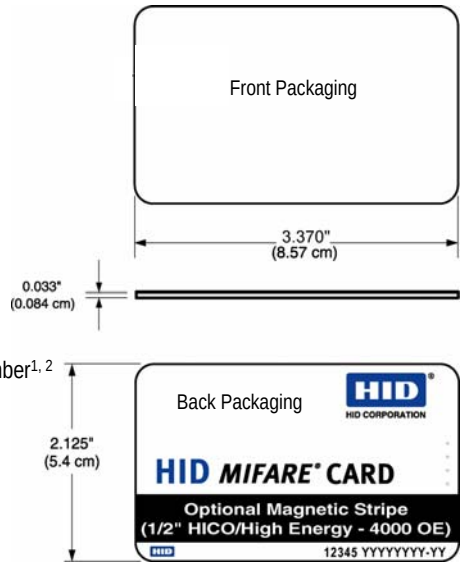
☐ G - Plain White with Gloss Finish[2]
☐ S - Standard HID MIFARE Artwork[2]
☐ 1 - Plain White with Gloss Finish with Magnetic Stripe[2]
☐ 2 - Standard HID MIFARE Artwork with Magnetic Stripe
☐ C - Custom Artwork with Gloss Finish – Specify Custom Artwork Number[1, 2]
☐ 3 - Custom Artwork with Gloss Finish with Magnetic Stripe - Specify Custom Artwork Number[1, 2]

Card Numbering[3] (Check One)

☐ M - Sequential Matching Internal/External (Inkjetted)
☐ N - No External Card Numbering
☐ U – UID (CSN) HEX card numbering only (Inkjetted)
☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)
☐ A - Sequential Matching Internal/External (Laser Engraved)[4]
☐ B - Sequential Internal/Sequential Non-Matching External (Laser Engraved)[4]
☐ C - Random Internal/Non-Matching Sequential External (Laser Engraved)[4]

Slot Punch[5] (Check One)

☐ N - No Slot Punch *(Printed location of vertical slot punch will remain)*
☐ V - Vertical Slot Punch



12345 = Card ID Number
YYYYYYYY-YY = Sales Order Number

Option - Custom Artwork[1]

☐ _____ (*Specify Artwork Number – Refer to the Custom Artwork Forms for new Artwork*)

Enter your final card options from check boxes above. Example: 1430NGGNN

Final Part Number							-	(*Options #*)

13.56 MHz Card Programming Information

Bit Numbers _____. (*example: 26 bit*) Format Number _____ (*example: H10301*)
Facility Code _____.
(Custom Formats) Site Code _____. City Code _____. OEM Code _____.
Internal Card No. Start _____. Stop _____.
External Card No. Start _____. Stop _____.
Special Instructions: _____.

For Contact Smart Chip selection, refer to Logical Access How to Order guide. Standard configuration does not include a contact smart chip module.

[1] For new artwork files, contact Customer Service for custom artwork number, lead-times, and cost. [2] Cards ordered with plain white front and back packaging, with no HID artwork or with custom artwork, will still have a small "HID logo" "HID" and reference number printed in the lower left-hand corner and a slot punch target printed on the back of the card. [3] The external card number is placed in the bottom right-hand corner on the back of the card on Proximity Format Programming only. [4] For Laser Engraved external numbers, consult factory for lead times and cost. [5] Cards are provided with an optional slot punch at no additional charge. Some video imaging printers cannot accommodate pre-slot punched cards. Consult with the printer manufacturer prior to ordering. [6] Includes a permanent Unique MIFARE 32 Bit Serial number. * The composite construction is recommended for all cards with over-laminate applied.

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1431/1441/1437/1447–Combination (MIFARE®/Prox) Card Ordering Guide

Ensure each required option has been checked with the appropriate choice to fulfill a completed order form.

Base Model ☐ *1431 (1K) Standard PVC* ☐ *1441 (4K) Standard PVC*
Base Model ☐ *1437 (1K)* Composite 40% Polyester / PVC * ☐ *1447 (4K)* Composite 40% Polyester / PVC *

MIFARE Programming (Check One)
- ☐ L - Programmed, (125 kHz only with HID Format)[6]. Specify Programming Information.
- ☐ M - Programmed, HID MIFARE [6] (Specify HID format, for example H10301).
- ☐ B - Programmed, (125kHz and 13.56 MHz with HID Format)[6]. Specify Programming Information.
- ☐ N - Non-Programmed (125 kHz & 13.56 MHz without HID Format)[6]. Programming Information Not Required.
- ☐ S - Custom Programmed , (13.56 MHz only)[6], Prox configured Specify Programming Information.
- ☐ R - Custom Programmed , (125kHz and Custom 13.56 MHz with HID Format)[6], Specify Programming Information.

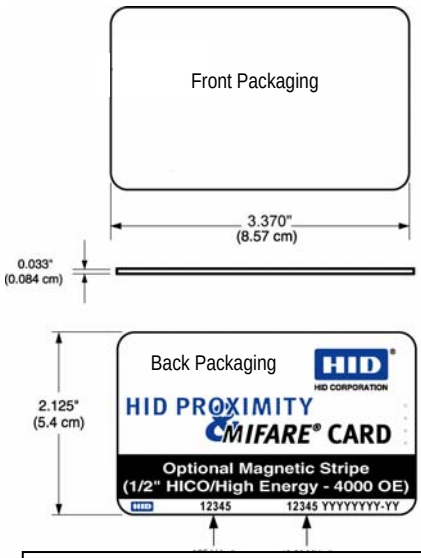
Front Packaging (Check One)
- ☐ G - Plain White with Gloss Finish
- ☐ C - Custom Artwork with Gloss Finish - Specify Custom Artwork Number[1]

Back Packaging (Check One)
- ☐ G - Plain White with Gloss Finish[2]
- ☐ S - Standard HID Proximity & MIFARE Artwork[2]
- ☐ 1 - Plain White with Gloss Finish with Magnetic Stripe[2]
- ☐ 2 - Standard HID MIFARE Artwork with Magnetic Stripe
- ☐ 3 - Custom Artwork with Gloss Finish with Magnetic Stripe - Specify Custom Artwork Number[1, 2]
- ☐ C - Custom Artwork with Gloss Finish - Specify Custom Artwork Number[1, 2]

125 kHz Proximity Card Numbering[3] (Check One)
- ☐ M - Sequential Matching Internal/External (Inkjetted)
- ☐ N - No External Card Numbering
- ☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
- ☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)
- ☐ A - Sequential Matching Internal/External (Engraved)[4]
- ☐ B - Sequential Internal/Sequential Non-Matching External (Engraved)[4]
- ☐ C - Random Internal/Non-Matching Sequential External (Engraved)[4]

Slot Punch[5] (Check One)
- ☐ N - No Slot Punch (Printed location of vertical slot punch will remain)
- ☐ V - Vertical Slot Punch

13.56 MIFARE Card Numbering[3] (Check One)
- ☐ M - Sequential Matching Internal/External (Inkjetted)
- ☐ N - No External Card Numbering
- ☐ U – UID (CSN) HEX card numbering only (Inkjetted)
- ☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
- ☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)
- ☐ A - Sequential Matching Internal/External (Engraved)[4]
- ☐ B - Sequential Internal/Sequential Non-Matching External (Engraved)[4]
- ☐ C - Random Internal/Non-Matching Sequential External (Engraved)[4]



12345 = Card ID Number
YYYYYYYY-YY = Sales Order Number

Option - Custom Artwork[1]
☐ _____ (*Specify Artwork Number – Refer to the Custom Artwork Forms for new Artwork*)

Enter your final card options from check boxes above. Example: 1441NGGNNN

Final Part Number									-	(*Options #*)

13.56 MHz Programming Information	125 kHz Programming Information
Bit Numbers _____. (*example: 26 bit*)	Bit Numbers _____. (*example: 26 bit*)
Format Number _____ (*example: H10301*)	Format Number _____ (*example: H10301*)
Facility Code _____.	Facility Code _____.
(Custom Formats) Site Code _____. City Code _____.	(Custom Formats) Site Code _____. City Code _____.
OEM Code _____.	OEM Code _____.
Internal Card No. Start _____. Stop _____.	Internal Card No. Start _____. Stop _____.
External Card No. Start _____. Stop _____.	External Card No. Start _____. Stop _____.
PIN: ☐ Sequential: Start # _____ ☐ Random: Length _____.	Special Instructions: _____.

For Contact Smart Chip selection, refer to Logical Access How to Order guide. Standard configuration does not include a contact smart chip module.

[1] For new artwork files, contact Customer Service for custom artwork number, lead-times, and cost. [2] Cards ordered with plain white front and back packaging, with no HID artwork or with custom artwork, will still have a small "HID logo" "HID" and reference number printed in the lower left-hand corner and a slot punch target printed on the back of the card. [3] The external card number is placed in the bottom left-hand corner (125kHz) and in the bottom right-hand corner (13.56 MHz) on the back of the card on Proximity Programming only. [4] For Laser Engraved external numbers, consult factory for lead times and cost. [5] Cards are provided with an optional slot punch at no additional charge. Some video imaging printers cannot accommodate pre-slot punched cards. Consult with the printer manufacturer prior to ordering. [6] Includes a permanent Unique MIFARE 32 Bit Serial number. * The composite construction is recommended for all cards with over-laminate applied.

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1434/1444 – MIFARE® Keyfob Ordering Guide

Ensure each required option has been checked with the appropriate choice to fulfill a completed order form.

Base Model ☐ ***1434 (1K)*** ☐ ***1444 (4K)***

Programming (Check One)
- ☐ M - Programmed, HID MIFARE [6] (Specify HID format, for example H10301).
- ☐ N - Non-Programmed (13.56 MHz). Programming Information Not Required.
- ☐ S - Custom Programmed, Specify Programming Information.

Front Packaging (Check One)
- ☐ S - Standard HID Artwork
- ☐ C - Custom Artwork - Specify Custom Artwork Number[1]

Back Packaging
- ☒ S - Standard

Key Numbering[1] (Check One)
- ☐ M - Sequential Matching Internal/External (Inkjetted)
- ☐ N - No External Card Numbering
- ☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
- ☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)
- ☐ A - Sequential Matching Internal/External (Laser Engraved)[4]
- ☐ B - Sequential Internal/Sequential Non-Matching External (Laser Engraved)[4]
- ☐ C - Random Internal/Non-Matching Sequential External (Laser Engraved)[4]

Slot Punch[2]
- ☒ N - None

Enter your final Key options from check boxes above. Example: 1434NSSNN

Final Part Number				S		N

13.56 MHz Card Programming Information

Bit Numbers _____. (*example: 26 bit)* Format Number _____ (*example: H10301*)

Facility Code _____.

(Custom Formats) Site Code _____. City Code _____. OEM Code _____.

Internal Card # Start _____. Stop _____. External Card # Start _____. Stop _____.

Special Instructions: _____.

[1] The external key number is placed on the back of the key.
[2] Key Ring sold separately (Part Number: 57-0001-02) .
[3] Includes a permanent Unique MIFARE 32 Bit Serial number.
[4] For Laser Engraved external numbers, consult factory for lead times and cost.

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1435/1445 – MIFARE® Adhesive Tag Ordering Guide

Ensure each required option has been checked with the appropriate choice to fulfill a completed order form.

Base Model ☐ ***1435 (1K)*** ☐ ***1445 (4K)***

Programming (Check One)

☐ M - Programmed, HID MIFARE [6] (Specify HID format, for example H10301).
☐ N - Non-Programmed (13.56 MHz). Programming Information Not Required.
☐ S - Custom Programmed, Specify Programming Information.

Front Packaging (Check One)

☐ S - Standard HID Artwork
☐ C - Custom Artwork - Specify Custom Artwork Number[1]

Back Packaging

☒ S - Standard

Tag Numbering[1] (Check One)

☐ M - Sequential Matching Internal/External (Inkjetted)
☐ N - No External Card Numbering
☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)

Slot Punch[2]

☒ N - None

Enter your final Tag options from check boxes above. Example: 1435NSSNN

Final Part Number				S		N

13.56 MHz Card Programming Information

Bit Numbers _____. (*example: 26 bit)* Format Number _____ (*example: H10301*)

Facility Code _____.

(Custom Formats) Site Code _____. City Code _____. OEM Code _____.

Internal Card # Start _____. Stop _____. External Card # Start _____. Stop _____.

Special Instructions: _____.

[1] The external tag number is placed on the back of the tag.
[2] For new artwork files, contact Customer Service for custom artwork number, lead-times, minimum order quantities, and cost.
[3] The Tag is not for use on cards that use full insertion or tractor feed type readers.
[4] Includes a permanent Unique MIFARE 32 Bit Serial number.
* Up to 1.14in (29mm) read range in free air.

Do not adhere to metal surfaces. Metal shields the RF, making the tag inoperable. Due to variations in cards and reading devices, HID does not claim that the Tag will work in every situation. Functional and non-functional Tags are available for compatibility testing with existing credential and reader technologies. Compatibility should be confirmed prior to ordering.

* = Actual read range performance affected by mounting location, environment and the tags tuned resonant frequency.

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1450/1456 – MIFARE® DESFire® EV1 Card Ordering Form Guide

Ensure each required option has been checked with the appropriate choice to fulfill a completed order form.

Base Model ☐ *1450 Standard PVC* ☐ *1456 Composite 40% Polyester / PVC **

DESFire EV1 Memory Size

If you are placing a re-order for a DESFire card based on the 0.6 version of the chip, you must omit this character from the part number. For example, for a non-programmed PVC card, the part number should be 1450N____.

☐ C - 8K Bytes DESFire EV1

Programming (Check One)

☐ N - Non-Programmed (13.56 MHz)[6]. Programming Information Not Required.
☐ S - Custom Programmed , (13.56 MHz only)[6], Specify Programming Information.

Front Packaging (Check One)

☐ G - Plain White with Gloss Finish
☐ C - Custom Artwork with Gloss Finish – Specify Custom Artwork Number[1]

Back Packaging (Check One)

☐ G - Plain White with Gloss Finish[2]
☐ 1 - Plain White with Gloss Finish with Magnetic Stripe[2]
☐ C - Custom Artwork with Gloss Finish – Specify Custom Artwork Number[1, 2]
☐ 3 - Custom Artwork with Gloss Finish with Magnetic Stripe - Specify Custom Artwork Number[1, 2]

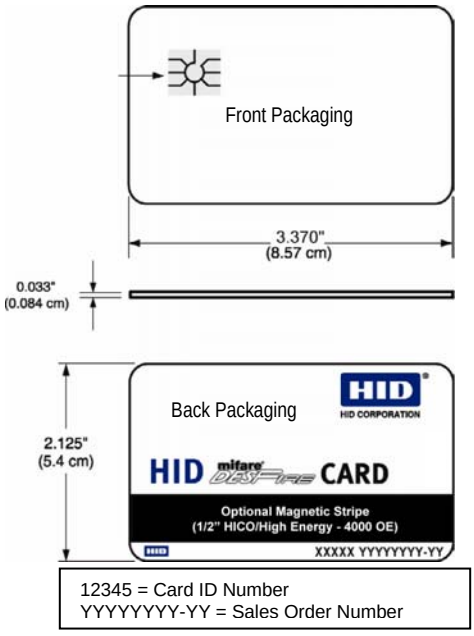
Card Numbering[3] (Check One)

☐ M - Sequential Matching Internal/External (Inkjetted)
☐ N - No External Card Numbering
☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)
☐ A - Sequential Matching Internal/External (Laser Engraved)[4]
☐ B - Sequential Internal/Sequential Non-Matching External (Laser Engraved)[4]
☐ C - Random Internal/Non-Matching Sequential External (Laser Engraved)[4]

Slot Punch[5] (Check One)

(IMPORTANT – MIFARE DESFire EV1 credentials do not allow a slot punch due to the antenna design, use a badge holder to attach this card to a lanyard or badge clip.)

☐ N - No Slot Punch



12345 = Card ID Number
YYYYYYYY-YY = Sales Order Number

Option - Custom Artwork[1]

☐ _____ (*Specify Artwork Number – Refer to the Custom Artwork Forms for new Artwork*)

Enter your final card options from check boxes above. Example: 1450CNGGNN

Final Part Number								-	*(Options #)*

13.56 MHz Card Programming Information

Bit Numbers _____. (*example: 26 bit)* Format Number _____ (*example: H10301*)

Facility Code _____.

(Custom Formats) Site Code _____. City Code _____. OEM Code _____.

Internal Card No. Start _____. Stop _____.

External Card No. Start _____. Stop _____.

Special Instructions: _____.

For Contact Smart Chip selection, refer to Logical Access How to Order guide. Standard configuration does not include a contact smart chip module.

[1] For new artwork files, contact Customer Service for custom artwork number, lead-times, and cost. [2] Cards ordered with plain white front and back packaging, with no HID artwork or with custom artwork, will still have a small "HID logo" "HID" and reference number printed in the lower left-hand corner and a slot punch target printed on the back of the card. [3] The external card number is placed in the bottom right-hand corner on the back of the card on Proximity Format Programming only. Permanent Unique MIFARE 56 Bit serial # cannot be printed on cards. [4] For Laser Engraved external numbers, consult factory for lead times and cost. [5] Cards are provided with an optional slot punch at no additional charge. Some video imaging printers cannot accommodate pre-slot punched cards. Consult with the printer manufacturer prior to ordering. [6] Includes a permanent Unique MIFARE 56 Bit Serial number. * The composite construction is recommended for all cards with over-laminate applied.

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1451/1457 – Combination (MIFARE® DESFire® EV1 / PROX) Card Ordering Guide

Ensure each required option has been checked with the appropriate choice to fulfill a completed order form.

Base Model ☐ *1451 (4K) Standard PVC* ☐ *1457 (4K) Composite 40% Polyester / PVC **

MIFARE DESFire EV1 Memory Size

If you are placing a re-order for a DESFire card based on the 0.6 version of the chip, you must omit this character from the part number. For example, for a non-programmed PVC card, the part number should be 1450N____.

☐ C - 8K Bytes MIFARE DESFire EV1

DESFire Programming (Check One)

☐ L - Programmed, (125 kHz only)[6]. Specify Programming Information.
☐ N - Non-Programmed (125 kHz & 13.56 MHz)[6]. Programming Information Not Required.
☐ S - Custom Programmed , (13.56 MHz only)[6], Prox Configured Specify Programming Information.
☐ R - Custom Programmed , (125kHz and Custom 13.56 MHz)[4, 6], Specify Programming Information.

Front Packaging (Check One)

☐ G - Plain White with Gloss Finish
☐ C - Custom Artwork with Gloss Finish - Specify Custom Artwork Number[1]

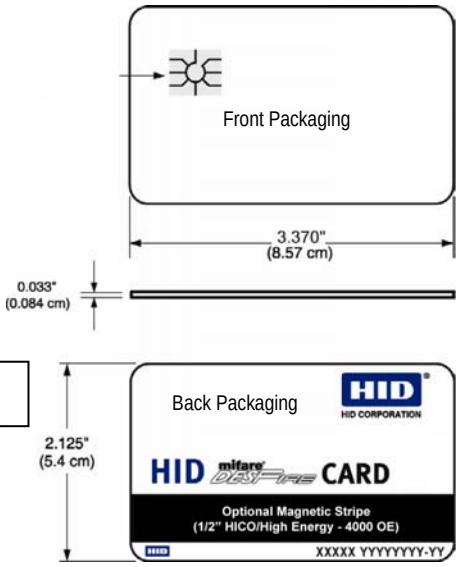
Back Packaging (Check One)

☐ G - Plain White with Gloss Finish[2]
☐ 1 - Plain White with Gloss Finish with Magnetic Stripe[2]
☐ 3 - Custom Artwork with Gloss Finish with Magnetic Stripe - Specify Custom Artwork Number[1, 2]
☐ C - Custom Artwork with Gloss Finish - Specify Custom Artwork Number[1, 2]

125 kHz Proximity Card Numbering[3] (Check One)

☐ M - Sequential Matching Internal/External (Inkjetted)
☐ N - No External Card Numbering
☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)
☐ A - Sequential Matching Internal/External (Engraved)[4]
☐ B - Sequential Internal/Sequential Non-Matching External (Engraved)[4]
☐ C - Random Internal/Non-Matching Sequential External (Engraved)[4]

12345 = Card ID Number
YYYYYYYY-YY = Sales Order Number



Slot Punch[5] (Check One)

(IMPORTANT – MIFARE DESFire EV1 credentials do not allow a slot punch due to the antenna design use a badge holder to attach this card to a lanyard or badge clip.)

☐ N - No Slot Punch

13.56 DESFire Card Numbering[3] (Check One)

☐ M - Sequential Matching Internal/External (Inkjetted)
☐ N - No External Card Numbering
☐ S - Sequential Internal/Sequential Non-Matching External (Inkjetted)
☐ R - Random Internal/Non-Matching Sequential External (Inkjetted)
☐ A - Sequential Matching Internal/External (Engraved)[4]
☐ B - Sequential Internal/Sequential Non-Matching External (Engraved)[4]
☐ C - Random Internal/Non-Matching Sequential External (Engraved)[4]

Option - Custom Artwork[1]

☐ _____ (*Specify Artwork Number – Refer to the Custom Artwork Forms for new Artwork*)

Enter your final card options from check boxes above. Example: 1457CNGGNNN

Final Part Number											-	(*Options #*)

13.56 MHz Programming Information

Bit Numbers_____. (*example: 26 bit*)
Format Number_____ (*example: H10301*)
Facility Code_____.
(Custom Formats) Site Code _____. City Code _____.
OEM Code _____.
Internal Card No. Start _____. Stop _____.
External Card No. Start _____. Stop _____.
PIN: ☐ Sequential: Start # _____ ☐ Random: Length _____.

125 kHz Programming Information

Bit Numbers_____. (*example: 26 bit*)
Format Number_____ (*example: H10301*)
Facility Code_____.
(Custom Formats) Site Code _____. City Code _____.
OEM Code _____.
Internal Card No. Start _____. Stop _____.
External Card No. Start _____. Stop _____.
Special Instructions: _____.

For Contact Smart Chip selection, refer to the Logical Access How to Order guide.
Standard configuration does not include a contact smart chip module.

[1] For new artwork files, contact Customer Service for custom artwork number, lead-times, and cost. [2] Cards ordered with plain white front and back packaging, with no HID artwork or with custom artwork, will still have a small "HID logo" "HID" and reference number printed in the lower left-hand corner and a slot punch target printed on the back of the card. [3] The external card number is placed in the bottom left-hand corner (125kHz) and in the bottom right-hand corner (13.56 MHz) on the back of the card on Proximity Programming only. Permanent unique MIFARE 56 Bit serial # cannot be printed on cards. [4] For Laser Engraved external numbers, consult factory for lead times and cost.. [5] Cards are provided with an optional slot punch at no additional charge. Some video imaging printers cannot accommodate pre-slot punched cards. Consult with the printer manufacturer prior to ordering. [6] Includes a permanent Unique MIFARE 56 Bit Serial number. * The composite construction is recommended for all cards with over-laminate applied.

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FlexSmart to HID Credential Cross Reference

Old Indala Part Number	New HID Part Number	Description
MXISO	**1430**	HID MIFARE Contactless Smart Card - Utilizes MIFARE 13.56 MHz Internal Smart Chip, Standard S50, 1 K Memory with 16 Sectors
MXKEY	**1434**	HID MIFARE Contactless Smart Keyfob - Utilizes MIFARE 13.56 MHz Internal Smart Chip, Standard S50, 1 K Memory with 16 Sectors
MXTAG	**1435**	HID MIFARE Contactless Smart Adhesive Tag - Utilizes MIFARE 13.56 MHz Internal Smart Chip, Standard S50, 1 K Memory with 16 Sectors
MXISO	**1440**	HID MIFARE Contactless Smart Card - Utilizes MIFARE 13.56 MHz Internal Smart Chip, Standard S70, 4 K Memory with 40 Sectors
MXKEY	**1444**	HID MIFARE Contactless Smart Keyfob - Utilizes MIFARE 13.56 MHz Internal Smart Chip, Standard S70, 4 K Memory with 40 Sectors
MXTAG	**1445**	HID MIFARE Contactless Smart Adhesive Tag - Utilizes MIFARE 13.56 MHz Internal Smart Chip, Standard S70, 4 K Memory with 40 Sectors
DXISO	**1450**	HID DESFire Contactless Smart Card - Utilizes DESFire 13.56 MHz Internal Smart Chip, Standard D40, 4K memory with flexible file system
FPMXI	**1451**	HID Combination DESFire/Prox Contactless Smart Card - Utilizes DESFire 13.56 MHz Internal Smart Chip, Standard D40, 4K memory with flexible file system
DXKEY	**1454**	HID DESFire Contactless Smart Keyfob - Utilizes DESFire 13.56 MHz Internal Smart Chip, Standard D40, 4K memory with flexible file system
DXTAG	**1455**	HID DESFire Contactless Smart Adhesive Tag - Utilizes DESFire 13.56 MHz Internal Smart Chip, Standard D40, 4K memory with flexible file system

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Custom Credentials
Artwork Checklist

Company Name: PO No. Date

Quantity: Card/Key/Tag and Artwork File No.

Minimum order quantity for Custom Artwork is 500 cards per order. Some Custom Artworks may be higher.
Minimum order quantity for Custom Artwork Tags/Keys is 10,000 tags per order.

This form, accompanied with the "Custom Artwork placement and Inkjet Location Form" MUST be filled out, SIGNED and returned to HID so that your order can be processed.

Credential Type: Standard PVC Cards or Keys/Tags

- ☐ 200 - iCLASS Card
- ☐ 202 - iCLASS Prox Card
- ☐ 204 - iCLASS Wiegand
- ☐ 206 - iCLASS Tag
- ☐ 208 - iCLASS Clamshell Card
- ☐ 1430/1440 - HID MIFARE®
- ☐ 1431/1441 - HID Proximity & MIFARE
- ☐ 1434/1444 - HID MIFARE® Keyfob
- ☐ 1435/1445 - HID MIFARE® Tag
- ☐ 1450 - HID DESFire®
- ☐ 1451 - HID DESFire® & Proximity
- ☐ 1454 - HID DESFire® Keyfob
- ☐ 1455 - HID DESFire® Tag

Credential Type: Composite PVC/Polyester[1] Cards (Additional fee and longer lead-time)

- ☐ 210 - iCLASS Card
- ☐ 212 - iCLASS Prox Card
- ☐ 214 - iCLASS Wiegand
- ☐ 1436/1446 - HID MIFARE
- ☐ 1437/1447 - HID Proximity & MIFARE
- ☐ 1456 - HID DESFire
- ☐ 1457 - HID DESFire & Proximity

Artwork Placement, Font styles and Colors:

- ☐ Artwork Placement on **Front** Side of card
- ☐ Artwork Placement on **Back** Side of card.
- ☐ Font Style(s): _____
- ☐ Front Side Colors: _____
- ☐ Back Side Colors _____

Do you plan to print over or around the custom artwork with a dye sublimation printer? ☐ Yes ☐ No

"Surface" ☐ or "Laminated" ☐ Lithographic Printing (Refer to the "Anti-Counterfeiting Descriptions" page in this guide for details)

Card Options:

Slot Punch [2,5]: ☐ Yes ☐ No ☐ Horizontal ☐ Vertical
Signature Panel: ☐ Yes ☐ No Size: _____.
Front Card Finish: ☒ Gloss
Back Card Finish: ☒ Gloss
Magnetic Stripe Coercivity: ☐ HID Standard (4000 OE) ☐ (2750 OE)
Magnetic Stripe Type: ☐ Standard 3 Track ☐ Debitek 1/8" ☐ Other: _____.

Anti-Counterfeiting Options:

Invisible Ink: ☐ Red ☐ Yellow ☐ Blue ☐ Green ☐ Glow in the Dark
Micro-fine Print: ☐ Yes ☐ No
Hologram [7]: ☐ Surface

Notes:

1. Standard Composite Card is 25% Polyester and 75% PVC. A .035" thick card with 35% Polyester is also available. Contact Customer Service for details.
2. Some cards will have printed "indicators" on the back of the card to show the vertical slot punch location.
3. Some cards will have a small "HID logo" "HID" and reference number, custom artwork file number, and external number (optional) printed on the card.
4. Do not order slot punched cards for use in dye sublimation printers. Slot edge may damage the printer ribbon. Slot should be punched after dye sublimation printing.
5. Some video imaging printers cannot accommodate pre-slot punched cards. Consult with the printer manufacturer prior to ordering
6. Surface Holograms cannot be placed over internal electronics.
7. "Representation, Warranty and Indemnity. Customer represents and warrants to HID that it owns, controls, or otherwise has the full and unrestricted right to use the custom artwork provided to HID for use in connection with this Custom Artwork Checklist Form (the "Custom Artwork") and to authorize and license HID to use and apply the Custom Artwork to the cards in the manner provided in this Custom Artwork Checklist Form. Customer agrees to indemnify HID and hold it harmless from and against any claims, liabilities, losses and/or expenses (including reasonable attorney fees and costs of suit) arising out of the use by HID of the Custom Artwork in the manner provided by this Custom Artwork Checklist Form or by any custom artwork proofs approved by the Customer."
8. HID does not recommend placing custom graphics on either side of the Contact Smart Chip area.

Name: _____ Signature: _____ Date: _____

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Electronic Artwork Checklist

File Submission & Preparation

This document gives digital artwork specifications from our press department. Use these guidelines and your project should go smoothly through the pre-press department.

☐ MEDIA:
Submit files via E-Mail or on CD. Compressed files should be self extracting. Submitted media will not be returned o the customer. FTP site available upon request.

☐ PLATFORM: MS WINDOWS®/Macintosh®
Projects that are set up in any of the major applications (listed below under "Graphic Applications") generally translate to Macintosh® smoothly. Save your final file with pictures embedded, outlined fonts and EPS Vector editable file.

☐ FONTS:
Use Type 1 fonts and include screen and printer fonts on disk. Type may be converted to paths or outlines, but we cannot make copy changes to text submitted in this form. In addition, converted type loses the benefits of PostScript font definitions; hence, type quality may suffer. This is more noticeable in small type (-18 point).

☐ PLACED GRAPHICS:
All placed graphics, saved as TIFF or EPS, should be included in their native program. If a Photoshop image is placed in a Quark document, we need the Photoshop image to produce the job. Sizing, cropping, rotation, etc. should all be done to the element in its native program and placed in Quark. Color images should be converted from RGB to CMYK. Special colors should be designated using PMS or provide color sample to be matched. Resolution of color images, B&W halftones, or duotones should be 300 dpi.

☐ GRAPHIC APPLICATIONS (latest version):
Adobe Photoshop® - Adobe Illustrator® - QuarkXpress®

☐ BITMAPS AND TRACING:
Scanned line art converted to bitmaps should have a resolution of 1200 - 2400 dpi. Lower resolutions will result in jagged curves. Many programs can convert (trace) bitmaps to vector drawings. Smoothing a traced image can be time consuming, but once completed yields a resolution independent graphic that will provide crisp reproduction for all future uses. We can provide this service for you at our regular file intervention rate. Minimum required DPI (dots per inch) is 300.

☐ BLEEDS:

Incorporate 0.125" of overwork for all bleed images. Any portion of the image that extends to the edge of the product is considered a bleed. Minimum required size with bleed is 2.227" x 3.477" for standard card size file.

☐ MARGINS:
Elements that do not bleed should be at least 0.125" from the edge.

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Anti-Counterfeiting Descriptions

Printing Types

1) Laminated Lithographic Printing: High resolution (>3600 dpi) offset printing technology yields photographic quality images. Laminated printing places the ink layer under a rigid clear plastic overlay which protects the printed image from abrasion and allows you to re-print over the existing artwork on the card. The cards are compatible with all Photo ID printing methods: dye-sub, reverse transfer and resin transfer.

2) Surface Lithographic Printing: This process is identical to the Laminated Lithographic Printing, but the ink layer is applied to the outer surface of the finished card and may include a clear coat. You may not be able to re-print on the card. The inks and clear coat are not compatible with D2T2 printing (Dye Diffusion Thermal Transfer, AKA dye-sublimation) but may be compatible with reverse transfer printing methods. The surface printing is durable enough for normal handling and use, but may wear more quickly in heavy use or swipe (magnetic stripe) applications. It is not recommended for high use applications, or for printing critical data such as emergency information. This process is often used for quick turnaround of simple text and graphics on card backs.

Surface Hologram

Holograms are one of the most recognizable anti-counterfeiting devices on the market. The optically variable image cannot be duplicated with standard printing. Surface holograms are applied via hot stamping to the exterior of the card surface. This style of application is common to all financial transaction cards.

Embedded Hologram

Embedded holograms are positioned under the rigid clear outer layer of the card surface. Unlike surface holograms, embedded holograms are amenable to dye sublimation – allowing the entire card surface to be personalized. This application style furthers the effectiveness of the anti-counterfeiting feature by requiring expensive specialized equipment during manufacture.

Embedded Advantage™ Security Seal

The Advantage™ product is a specialized optically variable device that is manufactured in only one plant worldwide. It has been the OVD of choice for many government identity documents, including many states driver licenses and the INS card. Like the embedded hologram, this device is placed under the rigid clear outer layer and is not subject to surface abrasion and wear. Advantage™ images shift from orange to green at different viewing angles.

Invisible Ultra-Violet (UV) Fluorescing Images

Common on credit card, currency and travel documents, invisible ink images provide a covert anti-counterfeiting mechanism. Though blue/violet fluorescing ink is readily available and inexpensive, red, green, yellow and orange fluorescing pigments remain difficult to acquire. This covert anti-counterfeiting device remains popular because of its relatively easy implementation in the field.

Micro-fine Printing

Very small spot color printing that exploits the limitations of inkjet, toner based (laser) and dye sublimation printers. Counterfeit reproductions can be determined with a handheld magnification tool.

Guilloche Printing

Fine line interlocking spot color patterns that are extremely difficult to scan and reproduce. These design elements are often multicolor and are commonly used on currency and travel documents.

Composite Formulations

Composite formulations are designed for durable applications and for use in dye sublimation printers that employ re-transfer technology and/or polyester laminate patches. Composite cards will minimize the warping caused by such processes. These formulations derive their strength from combining biaxial oriented polyester (OPET) with traditional polyvinyl chloride (PVC).

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Custom Card Artwork Placement and Inkjet Location Guides

Standard PVC and Composite PVC/Polyester Cards

Company Name:			PO No.		Date	
Quantity:		Card and Artwork File No.				

1. External Number:

☐ Standard Location: The standard external # location is shown on the template below. The external # can only be printed on the back of the card. The external # will be printed in the standard location, unless otherwise specified.

☐ Custom Location: Indicate the desired external # location by writing "12345" on the appropriate template. The external # can only be printed on the back of the card.

2. An Artwork File Number is placed on each card. The standard location is indicated by the "CCCCC". The standard location for the custom artwork number is on the back side of the card. Indicate/incorporate the artwork number on the artwork. *If there will be front side printing only, the custom artwork number will be placed on the printed side, opposite the standard location.*

3. Artwork Placement: Indicate the placement of your artwork on the template below. Custom artwork must clear the slot punch locations and edges by a min. of 0.125".

4. Magnetic Stripe (Optional): If the location of the magnetic stripe is custom (other than standard) and/or if other types of magnetic stripes are to be added to the card (for example Debitek stripe), indicate the locations of the magnetic stripe(s) on the template.

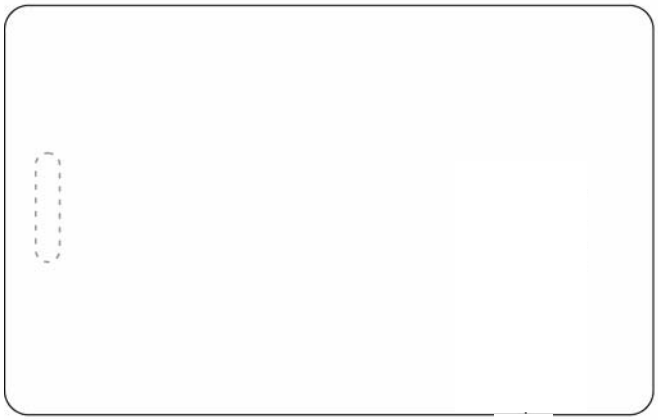
☐ Standard Location ☐ Custom Location

Card Artwork Templates

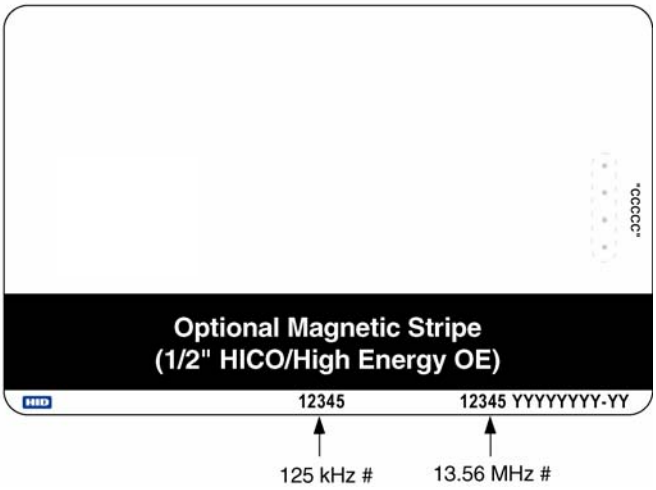
Slot Punch Indicators

12345 = Card ID Number
YYYYYYYY-YY = Sales Order Number

Front



Back



Notes:
1. External # location reads in the direction as shown. External # character height is approximately 0.1".
2. Cards will have a small "HID logo" " " and reference number printed in the lower left-hand corner and a slot punch target printed on the back of the card.
3. A standard custom artwork file number is printed on the back side of the card. Front side printing of this same number is an option.
4. Slot punch location "indicators" will appear on the back side of the card only.
5. Do not order slot punched cards for use in dye sublimation printers.
   Slot edge may damage the printer ribbon. Slot should be punched after dye sublimation printing.
6. Some video imaging printers cannot accommodate pre-slot punched cards. Consult with the printer manufacturer prior to ordering.

Name: _____ Signature: _____ Date: _____

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Tag Credentials

☐ iCLASS Tag ☐ MIFARE Tag ☐ DESFire Tag

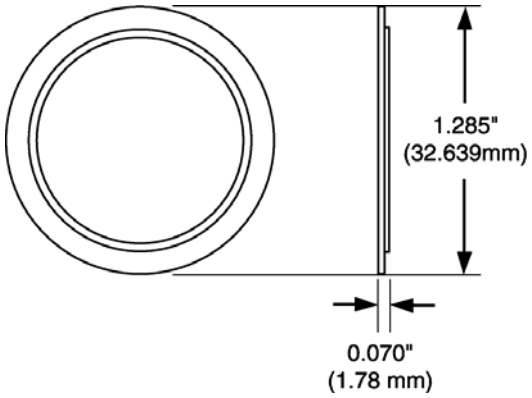
Company Name:		PO No.		Date	
Quantity:		Tag and Artwork File No.			

1. External Number:
☒ Standard Location: The external # can only be printed on the back of the Tag.

2. Artwork Placement: Indicate the placement of your artwork on the template below (Front side only). Custom artwork must clear the inner circle by a min. of 0.125".

Tag Artwork Template

Front



Notes:
1. Minimum order quantity 10,000 pieces per Purchase Order.
2. Maximum two color artwork.

Name: _____ Signature: _____ Date: _____

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Clamshell Cards

☒ iCLASS Clamshell Cards

Company Name:		PO No.		Date	
Quantity:		Card and Artwork File No.			

1. External Number:

☐ Standard Location: The standard external # location is shown on the template below. The external # can only be printed on the back of the card. The external # will be printed in the standard location, unless otherwise specified.

☐ Custom Location: Indicate the desired external # location by writing "12345" on the appropriate template. The external # can only be printed on the back of the card.

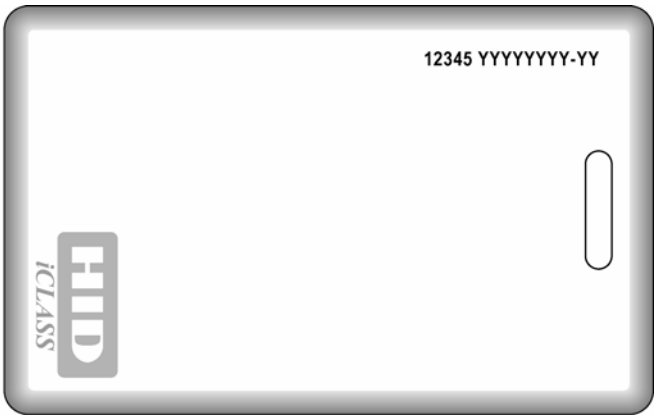
2. Artwork Placement: Indicate the placement of your artwork on the template below. Custom artwork must clear the slot punch location and edges by a min. of 0.125"

Card Artwork Templates

12345 = Card ID Number
YYYYYYYY-YY = Sales Order Number

Cover (Front)

Base (Back)



Notes:
1. All iCLASS Clamshell cards have a molded HID logo on the back side (as indicated) as well as a beveled edge all the way around the card. Custom artwork graphics need to clear the molded logo and bevel by a minimum of 0.125"
2. External # location reads in the direction as shown. External # character height is approximately 0.1"
3. There is no custom artwork file number on the iCLASS Clamshell.

Name: _____ Signature: _____ Date: _____

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iCLASS Readers

The following section of the How To Order Guide contains ordering information for iCLASS readers. iCLASS readers are available in various flavors, supporting many credential compatibilities, applications, and system interfaces. Use the following table to navigate to the applicable section of iCLASS part numbers.

Credential Compatibility	Application	System Interface
iCLASS / Prox / Magstripe	Access Control, Standard	Wiegand / C&D
iCLASS	Access Control, Standard	HADP / OSDP
iCLASS	Access Control, Standard	Hi-O
iCLASS	Read / Write, Standard	Serial
iCLASS	Biometric Access Control	Wiegand / C&D or Serial
FIPS 201 / Prox / iCLASS	Access Control, US Gov't	Wiegand / C&D
FIPS 201 / iCLASS	Access Control, US Gov't	HADP / OSDP
FIPS 201 / iCLASS	Read / Write, US Gov't	Serial
FeliCa / CEPAS / iCLASS	Access Control, Transit Credentials	Wiegand / C&D
Rijkspas (EV1) / MIFARE	Access Control, Dutch Gov't	Wiegand / C&D or Serial

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iCLASS Read-Only Reader Part Numbers and Options

Card Reader Description	Base Part No.	Current Rev. No.*	Color Options	Hardware Options	Configuration Setting Options[1]	iCLASS Security[2]	MIFARE CSN[3] Wiegand Output Mode	Keypad Configuration Setting Options[4]	Optional Custom[5]
iCLASS R10 Contactless Smart Card Reader: Mullion Mount - (Wiegand) Read-Only, RoHS Compliant (C&D)	6100 6108	C	G = Charcoal Gray K = Black	N = Pigtail 18" (0.5 meter) T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	0 1 2 3 4 5 6 Z	For Keypad readers only	-XXXX Y
iCLASS R15 Contactless Smart Card Reader: Mullion Mount - (Wiegand) Read-Only, RoHS Compliant (C&D)	6140 6148	C	G = Charcoal Gray K = Black	N = Pigtail 18" (0.5 meter) T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	0 1 2 3 4 5 6 Z	For Keypad readers only	-XXXX Y
iCLASS R30 Contactless Smart Card Reader: European & Asian Back Box Mount (Wiegand) Read-Only, RoHS Compliant (C&D)	6110 6118	C	G = Charcoal Gray K = Black	N = Pigtail 18" (0.5 meter) T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	0 1 2 3 4 5 6 Z	For Keypad readers only	-XXXX Y
iCLASS R40 Contactless Smart Card Reader: US, European & Asian Back Box Mount - (Wiegand) Read-Only, RoHS Compliant (C&D)	6120 6128	C	G = Charcoal Gray K = Black	N = Pigtail 18" (0.5 meter) T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	0 1 2 3 4 5 6 Z	For Keypad readers only	-XXXX Y
iCLASS RK40 Contactless Smart Card Reader: With Keypad - (Wiegand) US, European & Asian Back Box Mount (C&D) Read-Only, RoHS Compliant	6130 6138	C	G = Charcoal Gray K = Black	N = Pigtail 18" (0.5 meter) T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	0 1 2 3 4 5 6 Z	00 09 10 11 14 19 20 22	-XXXX Y
iCLASS R90 Contactless Smart Card Reader: Long Read Range - (Wiegand) Read-Only, RoHS Compliant	6150	A	K = Black	T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	0 = CSN option not available	For Keypad readers only	-XXXX Y
iCLASS RKL55 Contactless Smart Card Reader: Read, with LCD and Keypad US, European and Asian Back Box Mount (Wiegand) Wiegand or Clock and Data output (C&D) RoHS Compliant	6170 6178	B	K = Black	T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	0 1 2 3 4 5 6 Z	00 09 10 11 14 19 20 22	-XXXX Y

*Revision numbers and availability are subject to change without notice. Consult factory for availability.

[1] Configuration Setting Options are as follows (Factory or Field Configurable):
00 = Beep on, LED normally red, reader flashes green on tag read
01 = Beep off, LED normally red, reader flashes green on tag read
02 = Beep on, LED normally off, reader flashes green on tag read
03 = Beep off, LED normally off, reader flashes green on tag read
04 = Beep on, LED normally red, host must flash green
05 = Beep off, LED normally red, host must flash green
06 = Beep on, LED normally off, host must flash red and/or green
07 = Beep off, LED normally off, host must flash red and/or green

[2] iCLASS Security Options (Factory or Field Configurable): See Application Note Number 28 for additional information on Key Management.
0 = Standard (Reads all iCLASS cards with unique keys diversified from HID master key)
1 = Custom, not valid with FIPS201 options (Reads only iCLASS cards with unique keys diversified from matching site specific master key; consult factory for availability)
C = Standard with Open Collector Tamper enabled
D = Custom with Open Collector Tamper enabled

[3] MIFARE Card Serial Number (CSN) Wiegand Output Modes are as follows (Factory or Field Configurable). Refer to the "iCLASS Reader Wiegand Output Configuration Guide" for more details. (SETTING NOT APPLICABLE WITH ELITE ORDERS. ELITE READERS DO NOT READ MIFARE CSN.)
0 = 32 bit 1 = 32 bit reverse (Same as 6055A and 6055BXX0011) 2 = 26 bit 3 = 34 bit 4 = 40 bit 5 = 37 bit 6 = 56 bit Z = CSN Suppressed

[4] Keypad data is output via Wiegand cable. Reader processes keystrokes. Configuration Setting options:
00 = Buffer one key, no parity, 4 bit message
09 = Buffer one key, add compliment, 8 bit message (Dorado)
10 = Buffer six keys and add parity
11 = Buffer one key and add parity
14 = Buffer one to five keys (Standard 26 bit output)
19 = Buffer four keys and add parity
20 = Single Key buffering
22 = Local PIN Verify. Requires User PIN code to be programmed into the iCLASS Credential at the factory or by using the iCLASS Card Programmer (consult factory for availability.)

[5] Contact Factory for pricing, availability, and minimum order quantity.

RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)

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multiCLASS with HID or Indala Prox Read-Only Reader Part Numbers and Options

Card Reader Description	Base Part No	Current Rev No*	Color Options	Hardware Options	Configuration Setting Options[1]	iCLASS Security[2]	MIFARE CSN[3] Wiegand Output Mode	Keypad Configuration Setting Options[4]	Optional Custom[5]
iCLASS RP15 Combination Tech Reader: HID, AWID or Indala Prox, iCLASS & FIPS201- Mullion Mount (Wiegand) Read Only, RoHS Compliant (C&D)	6145 6143	C	G = Charcoal Gray K = Black	Pigtail Only N = HID and AWID Module D = Indala Module	00 01 02 03 04 05 06 07	0 1 C D	0 1 2 3 4 5 6 Z	For Keypad readers only	-XXXX Y
iCLASS RP40 Combination Technology Reader: HID, AWID, or Indala Prox, iCLASS & FIP201 US, European & Asian Back Box Mount - (Wiegand)) Read Only, RoHS Compliant (C&D)	6125 6123	C	G = Charcoal Gray K = Black	Pigtail Only N = HID and AWID Module D = Indala Module	00 01 02 03 04 05 06 07	0 1 C D	0 1 2 3 4 5 6 Z	For Keypad readers only	-XXXX Y
iCLASS RPK40 Combination Tech Reader: HID, AWID, or Indala Prox, iCLASS & FIP201 US, European & Asian Back Box Mount - (Wiegand) Read Only, RoHS Compliant (C&D)	6136 6133	C	G = Charcoal Gray K = Black	Pigtail Only N = HID and AWID Module D = Indala Module	00 01 02 03 04 05 06 07	0 1 C D	0 1 2 3 4 5 6 Z	00 09 10 11 14 19 20 22	-XXXX Y

*Revision numbers and availability are subject to change without notice. Consult factory for availability.

[1] Configuration Setting Options are as follows (Factory or Field Configurable):
00 = Beep on, LED normally red, reader flashes green on tag read
01 = Beep off, LED normally red, reader flashes green on tag read
02 = Beep on, LED normally off, reader flashes green on tag read
03 = Beep off, LED normally off, reader flashes green on tag read
04 = Beep on, LED normally red, host must flash green
05 = Beep off, LED normally red, host must flash green
06 = Beep on, LED normally off, host must flash red and/or green
07 = Beep off, LED normally off, host must flash red and/or green

[2] iCLASS Security Options (Factory or Field Configurable): See Application Note Number 28 for additional information on Key Management.
0 = Standard (Reads all iCLASS cards with unique keys diversified from HID master key)
1 = Custom, not valid with FIPS201 options (Reads only iCLASS cards with unique keys diversified from matching site specific master key; consult factory for availability)
C = Standard with Open Collector Tamper enabled
D = Custom with Open Collector Tamper enabled

[3] MIFARE Card Serial Number (CSN) Wiegand Output Modes are as follows (Factory or Field Configurable). Refer to the "iCLASS Reader Wiegand Output Configuration Guide" for more details. (SETTING NOT APPLICABLE WITH ELITE ORDERS. ELITE READERS DO NOT READ MIFARE CSN.)
0 = 32 bit 1 = 32 bit reverse (Same as 6055A and 6055BXX0011) 2 = 26 bit 3 = 34 bit 4 = 40 bit 5 = 37 bit 6 = 56 bit Z = CSN Suppressed

[4] Keypad data is output via Wiegand cable. Reader processes keystrokes. Configuration Setting options:
00 = Buffer one key, no parity, 4 bit message
09 = Buffer one key, add compliment, 8 bit message (Dorado)
10 = Buffer six keys and add parity
11 = Buffer one key and add parity
14 = Buffer one to five keys (Standard 26 bit output)
19 = Buffer four keys and add parity
20 = Single Key buffering
22 = Local PIN Verify. Requires User PIN code to be programmed into the iCLASS Credential at the factory or by using the iCLASS Card Programmer (consult factory for availability.)

[5] Contact Factory for pricing, availability, and minimum order quantity.

RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)

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multiCLASS Magstripe Read-Only Reader Part Numbers and Options

Card Reader Description	Base Part No	Current Rev No*	Color Options	Hardware Options	Configuration Setting Options[1]	iCLASS Security[2]	Magnetic Stripe Data Output[3]	Keypad Configuration Setting Options[4]	Optional Custom
iCLASS RM40 Combination Tech Reader, Wiegand Magnetic stripe, iCLASS US/EU APAC Back Box Mount, Wall switch form factor Read Only, RoHS Compliant	6220	C	K = Black	N = Pigtail T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	0 5 6 7 8 9 A B C D E F	N/A	-XXXX Y
iCLASS RM40 Combination Tech Reader, Clock-and-Data Magnetic stripe, iCLASS US/EU APAC Back Box Mount, Wall switch form factor Read Only, RoHS Compliant	6228	C	K = Black	N = Pigtail T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	1 4	N/A	-XXXX Y
iCLASS RMP40 Combination Tech Reader, Wiegand Magnetic stripe, HID and AWID Prox, iCLASS US/EU APAC Back Box Mount, Wall switch form factor Read Only, RoHS Compliant	6225	C	K = Black	N = Pigtail T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	0 5 6 7 8 9 A B C D E F	N/A	-XXXX Y
iCLASS RMP40 Combination Tech Reader, Clock-and-Data Magnetic stripe, HID and AWID Prox, iCLASS US/EU APAC Back Box Mount, Wall switch form factor Read Only, RoHS Compliant	6223	C	K = Black	N = Pigtail T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	1 4	N/A	-XXXX Y
iCLASS RMK40 Combination Tech Reader, Wiegand Magnetic stripe, iCLASS US/EU APAC Back Box Mount, Wall switch form factor Read Only, RoHS Compliant	6230	C	K = Black	N = Pigtail T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	0 5 6 7 8 9 A B C D E F	00 09 10 11 14 19 20 22	-XXXX Y
iCLASS RMK40 Combination Tech Reader, Clock-and-Data Magnetic stripe, iCLASS US/EU APAC Back Box Mount, Wall switch form factor Read Only, RoHS Compliant	6238	C	K = Black	N = Pigtail T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	1 4	00 09 10 11 14 19 20 22	-XXXX Y
iCLASS RMPK40 Combination Tech Reader, Wiegand Magnetic stripe, HID and AWID Prox, iCLASS US/EU APAC Back Box Mount, Wall switch form factor Read Only, RoHS Compliant	6236	C	K = Black	N = Pigtail T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	0 5 6 7 8 9 A B C D E F	00 09 10 11 14 19 20 22	-XXXX Y
iCLASS RMPK40 Combination Tech Reader, Clock-and-Data Magnetic stripe, HID and AWID Prox, iCLASS US/EU APAC Back Box Mount, Wall switch form factor Read Only, RoHS Compliant	6233	C	K = Black	N = Pigtail T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	1 4	00 09 10 11 14 19 20 22	-XXXX Y

*Revision numbers and availability are subject to change without notice. Consult factory for availability.

[1] Configuration Setting Options are as follows (Factory or Field Configurable):
00 = Beep on, LED normally red, reader flashes green on tag read 02 = Beep on, LED normally off, reader flashes green on tag read 04 = Beep on, LED normally red, host must flash green 06 = Beep on, LED normally off, host must flash red and/or green
01 = Beep off, LED normally red, reader flashes green on tag read 03 = Beep off, LED normally off, reader flashes green on tag read 05 = Beep off, LED normally red, host must flash green 07 = Beep off, LED normally off, host must flash red and/or green

[2] iCLASS Security Options (Factory or Field Configurable)
0 = Standard (Reads all iCLASS cards with unique keys diversified from HID master key) 1 = Custom,(Reads only iCLASS cards with unique keys diversified from matching site specific master key; consult factory for availability)
C = Standard with Open Collector Tamper enabled D = Custom with Open Collector Tamper enabled

[3] Magnetic Stripe Data Output
0 = Northern card to 32 bit Wiegand, (FC=16 bits. ID=16 bits) 1 = ABA card, all bits raw data – C&D 4 = ABA card all ABA digits, plus 10 leading & 10 trailing 0's – C&D 5 = ABA card all ABA digits, plus 10 leading & 10 trailing 0's – Wiegand
6 = ABA card convert last 4 ABA digits in first field to binary and output as 26 bit Wiegand 7 = ABA card convert last 7 ABA digits in first field to binary and output as 26 bit Wiegand 8 = EMPI card to 26 bit Wiegand
9 = EMPI card to 34 bit Wiegand A = ABA card, convert last 9 ABA digits in first field to binary and output as 34 bit Wiegand B = Basic MS raw output - all bits Wiegand in order received C = ABA to 26 bit Wiegand (FC=8 bits, ID=16 bits)
D = ABA to 34 bit Wiegand(FC=16 bits ID=16 bits) E = ABA to 34 bit Wiegand (Mercury compatible) (FC=12 bits, ID=20 bits) F = ABA to 26 bit Wiegand

[4] Keypad data is output via Wiegand cable. Reader processes keystrokes. Configuration Setting options:
00 = Buffer one key, no parity, 4 bit message 09 = Buffer one key, add compliment, 8 bit message (Dorado) 10 = Buffer six keys and add parity 11 = Buffer one key and add parity 14 = Buffer one to five keys (Standard 26 bit output) 19 = Buffer four keys and add parity
20 = Single Key buffering 22 = Local PIN Verify. Requires User PIN code to be programmed into the iCLASS Credential at the factory or by using the iCLASS Card Programmer (consult factory for availability.)

RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)

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multiCLASS with EM4102 Prox Read-Only Reader Part Numbers and Options

Card Reader Description	Base Part No	Current Rev No*	Color Options	Hardware Options	Configuration Setting Options[1]	iCLASS Security[2]	MIFARE CSN[3] & EM4102[4] Wiegand Output Mode	Keypad Configuration Setting Options[5]	Optional Custom[6]
iCLASS RP15 Combination Tech Reader: EM4102 Prox, iCLASS & FIPS201- Mullion Mount (Wiegand) Read Only, RoHS Compliant (C&D)	6145 6143	C	G = Charcoal Gray K = Black	Pigtail Only E = EM4102 Module	00 01 02 03 04 05 06 07	0 1 C D	0 2 3 4 K M N P Q S T U V	For Keypad readers only For Keypad readers only	-XXXX Y
iCLASS RP40 Combination Technology Reader: EM4102 Prox, iCLASS & FIP201 US, European & Asian Back Box Mount - (Wiegand)) Read Only, RoHS Compliant (C&D)	6125 6123	C	G = Charcoal Gray K = Black	Pigtail Only E = EM4102 Module	00 01 02 03 04 05 06 07	0 1 C D	0 2 3 4 K M N P Q S T U V	For Keypad readers only For Keypad readers only	-XXXX Y
iCLASS RPK40 Combination Tech Reader: EM4102 Prox, iCLASS & FIP201 US, European & Asian Back Box Mount - (Wiegand) Read Only, RoHS Compliant (C&D)	6136 6133	A	G = Charcoal Gray K = Black	Pigtail Only E = EM4102 Module	00 01 02 03 04 05 06 07	0 1 C D	0 2 3 4 K M N P Q S T U V	00 09 10 11 14 19 20 22	-XXXX Y

* Revision numbers and availability are subject to change without notice. Consult the factory for availability.

[1] Configuration Setting Options are as follows (Factory or Field Configurable):
00 = Beep on, LED normally red, reader flashes green on tag read
01 = Beep off, LED normally red, reader flashes green on tag read
02 = Beep on, LED normally off, reader flashes green on tag read
03 = Beep off, LED normally off, reader flashes green on tag read
04 = Beep on, LED normally red, host must flash green
05 = Beep off, LED normally red, host must flash green
06 = Beep on, LED normally off, host must flash red and/or green
07 = Beep off, LED normally off, host must flash red and/or green

[2] iCLASS Security Options (Factory or Field Configurable): See Application Note 28 for additional information on Key Management.
0 = Standard (Reads all iCLASS cards with unique keys diversified from HID master key)
1 = Custom, not valid with FIPS201 options (Reads only iCLASS cards with unique keys diversified from matching site specific master key; consult factory for availability)
C = Standard with Open Collector Tamper enabled
D = Custom with Open Collector Tamper enabled

[3] MIFARE Card Serial Number (CSN) and EM4102 Wiegand Output Modes are as follows (Factory or Field Configurable), Refer to the "iCLASS Reader Wiegand Output Configuration Guide" for details. (SETTING NOT APPLICABLE WITH ELITE ORDERS. ELITE READERS DO NOT READ MIFARE CSN.)
0 = 32 bit Wiegand 2 = 26 bit Wiegand 3 = 34 bit Wiegand 4 = 40 bit Wiegand 5 = 34 bit Wiegand (EM Parity Modified) (Note: This is = ask option 8, MIFARE CSN enabled)

[4] EM4102 Output (MIFARE CSN Suppressed)
K = 26 Bit Wiegand M=34 Bit Wiegand N=40 Bit Wiegand P=42Bit Wiegand Q=C&D (10 Digit Magstripe) S=32 Bit Wiegand
T = 42 bit Wiegand (Parity Modified, MIFARE CSN Suppressed) U = 34 bit Wiegand (Parity Modified, MIFARE CSN Suppressed) V = 34 bit Wiegand (Parity Modified, 34-bit MIFARE CSN)

[5] Keypad data is output via Wiegand cable. Reader processes keystrokes. Configuration Setting options:
00 = Buffer one key, no parity, 4 bit message
09 = Buffer one key, add compliment, 8 bit message (Dorado)
10 = Buffer six keys and add parity
11 = Buffer one key and add parity
14 = Buffer one to five keys (Standard 26 bit output)
19 = Buffer four keys and add parity
20 = Single Key buffering
22 = Local PIN Verify. Requires User PIN code programmed into the iCLASS Credential (factory) or use the iCLASS Card Programmer (consult factory for availability.)

[6] Contact the factory for pricing, availability, and minimum order quantity

RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)

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iCLASS HADP/OSDP Reader Part Numbers and Options

Card Reader Description	Base Part No	Current Rev No*	Color Options	Hardware Options [5]	Configuration Settings Options	iCLASS Security	MIFARE CSN[3]	Keypad Configuration[4]	Optional Custom
iCLASS R15 Contactless Smart Card Reader HADP/OSDP Enabled Mullion Mount Read-Only, RoHS Compliant	6142	C	G = Charcoal Gray K = Black	P = Terminal Strip with HADP/OSDP (RS485) Module	00 01 02 03 04 05 06 07	0 1 P Q	0 1 2 3 4 5 6 Z	For keypad readers only	-XXXXY
iCLASS R30 Contactless Smart Card Reader HADP/OSDP Enabled European and Asian Back Box Mount Read-Only, RoHS Compliant	6112	C	G = Charcoal Gray K = Black	P = Terminal Strip with HADP/OSDP (RS485) Module	00 01 02 03 04 05 06 07	0 1 P Q	0 1 2 3 4 5 6 Z	For keypad readers only	-XXXXY
iCLASS R40 Contactless Smart Card Reader HADP/OSDP Enabled US, European and Asian Back Box Mount Read-Only, RoHS Compliant	6122	C	G = Charcoal Gray K = Black	P = Terminal Strip with HADP/OSDP (RS485) Module	00 01 02 03 04 05 06 07	0 1 P Q	0 1 2 3 4 5 6 Z	For keypad readers only	-XXXXY
iCLASS RK40 Contactless Smart Card Keypad Reader HADP/OSDP Enabled US, European and Asian Back Box Mount Read-Only, RoHS Compliant	6132	C	G = Charcoal Gray K = Black	P = Terminal Strip with HADP/OSDP (RS485) Module	00 01 02 03 04 05 06 07	0 1 P Q	0 1 2 3 4 5 6 Z	00 09 10 11 14 19 20 22	-XXXXY
iCLASS RKL55 Contactless Smart Card LCD/Keypad Reader HADP/OSDP Enabled US, European and Asian Back Box Mount Read-Only, RoHS Compliant	6172	B	K = Black	P = Terminal Strip with HADP/OSDP (RS485) Module	00 01 02 03 04 05 06 07	0 1 P Q	0 1 2 3 4 5 6 Z	00 09 10 11 14 19 20 22	-XXXXY

*Revision numbers and availability are subject to change without notice. Consult factory for availability.

[1] Configuration Setting Options are as follows (Factory or Field Configurable):
00 = Beep on, LED normally red, reader flashes green on tag read
01 = Beep off, LED normally red, reader flashes green on tag read
02 = Beep on, LED normally off, reader flashes green on tag read
03 = Beep off, LED normally off, reader flashes green on tag read
04 = Beep on, LED normally red, host must flash green
05 = Beep off, LED normally red, host must flash green
06 = Beep on, LED normally off, host must flash red and/or green
07 = Beep off, LED normally off, host must flash red and/or green

[2] iCLASS Security Options (Factory or Field Configurable): See Application Note Number 28 for additional information on Key Management.
0 = Standard (Reads all iCLASS cards with unique keys diversified from HID master key)
1 = Elite Key (Reads only iCLASS cards with unique keys diversified from matching site specific master key; consult factory for availability)
P = Standard with OSDP Tamper enabled
Q = Elite with OSDP Tamper enabled

[3] MIFARE Card Serial Number (CSN) Wiegand Output Modes are as follows (Factory or Field Configurable). Refer to the "iCLASS Reader Wiegand Output Configuration Guide" for more details.
(SETTING NOT APPLICABLE WITH ELITE ORDERS. ELITE READERS DO NOT READ MIFARE CSN.)
0 = 32 bit 1 = 32 bit reverse (Same as 6055A and 6055BXX0011) 2 = 26 bit 3 = 34 bit 4 = 40 bit 5 = 37 bit 6 = 56 bit Z = CSN Suppressed

[4] Keypad data is output via Wiegand cable. Reader processes keystrokes. HADP/OSDP interface supports standard OSDP keypad output. Configuration Setting options for Wiegand interface includes:
00 = Buffer one key, no parity, 4 bit message
09 = Buffer one key, add compliment, 8 bit message (Dorado)
10 = Buffer six keys and add parity
11 = Buffer one key and add parity
14 = Buffer one to five keys (Standard 26 bit output)
19 = Buffer four keys and add parity
20 = Single Key buffering
22 = Local PIN Verify. Requires User PIN code to be programmed into the iCLASS Credential at the factory or by using the iCLASS Card Programmer (consult factory for availability.)

[5] The HADP/OSDP communication modules allow host driven communication using HADP (HID Advanced Device Protocol) / OSDP (Open Supervised Device Protocol) over an RS485 (Half-Duplex) hardware interface.
RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)

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iCLASS Hi-O Enabled Reader Part Numbers and Options

Card Reader Description	Base Part No	Current Rev No*	Color Options	Hardware Options [7]	Configuration Settings Options	iCLASS Security	MIFARE CSN	Keypad Configuration	Optional Custom
iCLASS R10 Contactless Smart Card Reader Hi-O Communications Mullion Mount Read-Only, RoHS Compliant	6102	C	G = Charcoal Gray K = Black	H = Terminal Strip with Hi-O Communications	00	0 1	0	For keypad readers only	-XXXXY
iCLASS R15 Contactless Smart Card Reader Hi-O Communications Mullion Mount Read-Only, RoHS Compliant	6142	C	G = Charcoal Gray K = Black	H = Terminal Strip with Hi-O Communications	00	0 1	0	For keypad readers only	-XXXXY
iCLASS R30 Contactless Smart Card Reader Hi-O Communications European and Asian Back Box Mount Read-Only, RoHS Compliant	6112	C	G = Charcoal Gray K = Black	H = Terminal Strip with Hi-O Communications	00	0 1	0	For keypad readers only	-XXXXY
iCLASS R40 Contactless Smart Card Reader Hi-O Communications US, European and Asian Back Box Mount Read-Only, RoHS Compliant	6122	C	G = Charcoal Gray K = Black	H = Terminal Strip with Hi-O Communications	00	0 1	0	For keypad readers only	-XXXXY
iCLASS RK40 Contactless Smart Card Keypad Reader Hi-O Communications US, European and Asian Back Box Mount Read-Only, RoHS Compliant	6132	C	G = Charcoal Gray K = Black	H = Terminal Strip with Hi-O Communications	00	0 1	0	00	-XXXXY

*Revision numbers and availability are subject to change without notice. Consult factory for availability.
[1] Configuration Setting Options are as follows (Factory or Field Configurable):
00 = Beep on, LED normally red, reader flashes green on tag read
[2] iCLASS Security Options (Factory or Field Configurable): See Application Note Number 28 for additional information on Key Management.
0 = Standard (Reads all iCLASS cards with unique keys diversified from HID master key)
1 = Elite Key (Reads only iCLASS cards with unique keys diversified from matching site specific master key; consult factory for availability)
[3] MIFARE Card Serial Number (CSN) Hi-O bus output modes are as follows:
(SETTING NOT APPLICABLE WITH ELITE ORDERS. ELITE READERS DO NOT READ MIFARE CSN.)
0 = 32 bit LSB (if DESFire or other CSN Length, output is length of CSN output LSB)
Credential data is always represented within a Card Format Hi-O data package.
[5] Keypad data is output via Hi-O bus. Reader processes keystrokes. Configuration Setting options:
00 = ASCII (Hi-O Bus Default)
[6] Contact Factory for pricing, availability, and minimum order quantity.
[7] The Hi-O communications allows for encrypted CANbus communication with other Hi-O enabled devices.
RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)

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iCLASS Read/Write Reader Part Numbers and Options

Card Reader Description	Base Part No.	Current Rev. No.*	Color Options	Hardware Options[6]	Configuration Setting Options[1]	iCLASS Security[2]	MIFARE CSN[3] Wiegand Output Mode	Keypad Configuration Setting Options[4]	Optional Custom[5]
iCLASS RW100 Contactless Smart Card Reader/Writer: Read/Write Mullion Mount Wiegand and RS232 or RS485 or USB or UART (RoHS Compliant)	6101	C	G = Gray K = Black	T = RS232 4 = RS485(Full-Duplex) M = RS485(Half-Duplex) U = USB B = UART to UART	00 01 02 03 04 05 06 07	0 1 C D	0 1 2 3 4 5 6 Z	For Keypad readers only	-XXXX Y
iCLASS RW150 Contactless Smart Card Reader/Writer: Read/Write Mullion Mount Wiegand and RS232 or RS485 or USB or UART (RoHS Compliant)	6141	C	G = Gray K = Black	T = RS232 4 = RS485(Full-Duplex) M = RS485(Half-Duplex) U = USB B = UART to UART	00 01 02 03 04 05 06 07	0 1 C D	0 1 2 3 4 5 6 Z	For Keypad readers only	-XXXX Y
iCLASS RW300 Contactless Smart Card Reader/Writer: Read/Write European and Asian Back Box Mount Wiegand and RS232 or RS485 or USB or UART (RoHS Compliant)	6111	C	G = Gray K = Black	T = RS232 4 = RS485(Full-Duplex) M = RS485(Half-Duplex) U = USB B = UART to UART	00 01 02 03 04 05 06 07	0 1 C D	0 1 2 3 4 5 6 Z	For Keypad readers only	-XXXX Y
iCLASS RW400 Contactless Smart Card Reader/Writer: Read/Write US, European and Asian Back Box Mount Wiegand and RS232 or RS485 or USB or UART (RoHS Compliant)	6121	C	G = Gray K = Black	T = RS232 4 = RS485(Full-Duplex) M = RS485(Half-Duplex) U = USB B = UART to UART	00 01 02 03 04 05 06 07	0 1 C D	0 1 2 3 4 5 6 Z	For Keypad readers only	-XXXX Y
iCLASS RWK400 Contactless Smart Card Reader/Writer: Read/Write, with Keypad US, European and Asian Back Box Mount (RoHS Compliant) Wiegand Output, and/or RS-232/422 or USB or UART	6131	C	G = Gray K = Black	T = RS232 4 = RS485(Full-Duplex) M = RS485(Half-Duplex) U = USB B = UART to UART	00 01 02 03 04 05 06 07	0 1 C D	0 1 2 3 4 5 6 Z	00 09 10 11 14 19 20 22	-XXXX Y
iCLASS RWKL550 Contactless Smart Card Reader/Writer: Read/Write, with LCD and Keypad US, European and Asian Back Box Mount Wiegand Output, and/or RS-232, RS- 485, USB or UART (RoHS Compliant)	6171	B	K = Black	T = RS232 4 = RS485(Full-Duplex) M = RS485(Half-Duplex) U = USB B = UART to UART	00 01 02 03 04 05 06 07	0 1 C D	0 1 2 3 4 5 6 Z	00 09 10 11 14 19 20 22	-XXXX Y

*Revision numbers and availability are subject to change without notice. Consult factory for availability.

[1] Configuration Setting Options are as follows (Factory or Field Configurable):
00 = Beep on, LED normally red, reader flashes green on tag read
01 = Beep off, LED normally red, reader flashes green on tag read
02 = Beep on, LED normally off, reader flashes green on tag read
03 = Beep off, LED normally off, reader flashes green on tag read
04 = Beep on, LED normally red, host must flash green
05 = Beep off, LED normally red, host must flash green
06 = Beep on, LED normally off, host must flash red and/or green
07 = Beep off, LED normally off, host must flash red and/or green

[2] iCLASS Security options (Factory or Field Configurable): See Application Note Number 28 for additional information on Key Management.
0 = Standard (Reads all iCLASS cards with unique keys diversified from HID master key)
1 = Elite Key (Reads only iCLASS cards with unique keys diversified from matching site specific master key; consult factory for availability)
C = Standard with Open Collector Tamper enabled
D = Custom with Open Collector Tamper enabled

[3] MIFARE Card Serial Number (CSN) Wiegand Output Modes are as follows (Factory or Field Configurable). Refer to the "iCLASS Reader Wiegand Output Configuration Guide" for more details. (SETTING NOT APPLICABLE WITH ELITE ORDERS. ELITE READERS DO NOT READ MIFARE CSN.)
0 = 32 bit 1 = 32 bit reverse (Same as 6055A and 6055BXX0011) 2 = 26 bit 3 = 34 bit 4 = 40 bit 5 = 37 bit 6 = 56 bit Z = CSN Suppressed

[4] Keypad data is output via Wiegand cable. Reader processes keystrokes. Configuration Setting options:
00 = Buffer one key, no parity, 4 bit message
09 = Buffer one key, add compliment, 8 bit message (Dorado)
10 = Buffer six keys and add parity
11 = Buffer one key and add parity
14 = Buffer one to five keys (Standard 26 bit output)
19 = Buffer four keys and add parity
20 = Single Key buffering
22 = Local PIN Verify. Requires User PIN code to be programmed into the iCLASS Credential at the factory or by using the iCLASS Card Programmer (consult factory for availability.)

[5] Contact Factory for pricing, availability, and minimum order quantity.

[6] All the following communication modules allow host driven communication using the iCLASS Serial Protocol. All the following communication modules (except USB) allow for card ID reporting instantiated by the reader. For multi-drop functionality, see iCLASS HADP/OSDP Readers. All Reader/Writers are terminal strip readers. RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)

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bioCLASS Reader/Enroller, Read-Only and Read/Write Biometric Reader Part Numbers and Options

Card Reader Description	Base Part No.	Current Rev. No.*	Color Options	Hardware Options[8]	Configuration Setting Options[1]	iCLASS Security[2]	MIFARE CSN[3] Wiegand Output Mode	Keypad Configuration Setting Options[4]	Optional Custom
iCLASS RKLB57 Contactless Smart Card Biometric Reader/Enroller: Reader with LCD, Keypad, and fingerprint biometric module US, European and Asian Back Box Mount (Wiegand Output) Read Only, RoHS Compliant	6180	B	K = Black	R = Reader/Enroller[6]	00 01 02 03 04 05 06 07	0 1C D	0 = N/A	00 09 10 11 14 19 20 22	-XXXX Y
iCLASS RKLB57 Contactless Smart Card Reader: with LCD, Keypad, and fingerprint biometric module US, European and Asian Back Box Mount (Wiegand Output) Read Only, RoHS Compliant (C&D Output) Requires reader/enroller or CP575A for enrolling fingerprint templates.	6180 6188	B	K = Black	T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	0 = N/A	00 09 10 11 14 19 20 22	-XXXX Y
iCLASS RWKLB575 Contactless Smart Card Reader/Writer: Read/Write, with LCD, Keypad, and fingerprint biometric module US, European and Asian Back Box Mount Wiegand Output, and/or RS-232, RS-485, USB or UART Requires reader/enroller or CP575A for enrolling fingerprint templates.	6181	B	K = Black	(All Terminal Strip) T = RS232 4 = RS485 (Full-Duplex) U = USB B = UART to UART	00 01 02 03 04 05 06 07	0 1 C D	0 = N/A	00 09 10 11 14 19 20 22	-XXXX Y
iCLASS BIO500 [5] fingerprint biometric module upgrade (Sensor Only)	6190	B	K = Black	N = None	00	0 = N/A	0 = N/A	00	N/A

*Revision numbers and availability are subject to change without notice. Consult factory for availability.

[1] Configuration Setting Options are as follows (Factory or Field Configurable):
00 = Beep on, LED normally red, reader flashes green on tag read
01 = Beep off, LED normally red, reader flashes green on tag read
02 = Beep on, LED normally off, reader flashes green on tag read
03 = Beep off, LED normally off, reader flashes green on tag read
04 = Beep on, LED normally red, host must flash green
05 = Beep off, LED normally red, host must flash green
06 = Beep on, LED normally off, host must flash red and/or green
07 = Beep off, LED normally off, host must flash red and/or green

[2] iCLASS Security options (Factory or Field Configurable)
0 = Standard; protects access and biometric applications (Reads/Enrolls all iCLASS cards with unique keys diversified from HID master key)
1 = Elite; protects access and biometric applications (Reads/Enrolls only iCLASS cards with site-specific Elite key; consult factory for availability)
C = Standard with Open Collector Tamper enabled
D = Elite with Open Collector Tamper enabled

[3] MIFARE Card Serial Number (CSN) Wiegand Output Modes are as follows (Factory or Field Configurable). Refer to the "iCLASS Reader Wiegand Output Configuration Guide" for more details.
(SETTING NOT APPLICABLE WITH ELITE ORDERS. ELITE READERS DO NOT READ MIFARE CSN.)
0 = 32 bit 1 = 32 bit reverse (Same as 6055A and 6055BXX0011) 2 = 26 bit 3 = 34 bit 4 = 40 bit 5 = 37 bit 6 = 56 bit

[4] Keypad data is output via Wiegand cable. Reader processes keystrokes. Configuration Setting options:
00 = Buffer one key, no parity, 4 bit message
09 = Buffer one key, add compliment, 8 bit message (Dorado)
10 = Buffer six keys and add parity
11 = Buffer one key and add parity
14 = Buffer one to five keys (Standard 26 bit output)
19 = Buffer four keys and add parity
20 = Single Key buffering
22 = Local PIN Verify. Requires User PIN code to be programmed into the iCLASS Credential by using Reader/Enroller or CP575A.

[5] BIO500 fingerprint biometric module upgrade is compatible with the RWKL550 iCLASS LCD Keypad Reader only.

[6] In addition to RKLB57 reader only (6180BKT), this part provides additional enrollment capabilities and multi-lingual support. Reader/Enroller is field configurable for one of the following behaviors: reader/enroller, reader-only or enroller-only, and field configurable for one of 10 languages (see datasheet for more information). This product replaces CP575 fingerprint template enroller (no longer available).

[8] All the following communication modules allow host driven communication using the iCLASS Serial Protocol. All the following communication modules (except USB) allow for card ID reporting instantiated by the reader.

RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)

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iCLASS US Government FIPS 201 Compliant Read-Only Reader Part Numbers and Options

Card Reader Description	Base Part No.	Current Rev. No.*	Color Options	Hardware Options	Configuration Setting Options[1]	iCLASS Security[2]	FIPS 201[3] Wiegand Output Mode	Keypad Configuration Setting Options[4]	US Government (FIPS 201) Required Part Suffix
iCLASS R10 Contactless Smart Card Reader: Mullion Mount - (Wiegand) Read-Only, RoHS Compliant (C&D)	6100 6108	C	G = Charcoal Gray K = Black	N = Pigtail 18" (0.5 meter) T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	For Keypad readers only	-G3.0
iCLASS R15 Contactless Smart Card Reader: Mullion Mount - (Wiegand) Read-Only, RoHS Compliant (C&D)	6140 6148	C	G = Charcoal Gray K = Black	N = Pigtail 18" (0.5 meter) T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	For Keypad readers only	-G3.0
iCLASS R30 Contactless Smart Card Reader: European & Asian Back Box Mount (Wiegand) Read-Only, RoHS Compliant (C&D)	6110 6118	C	G = Charcoal Gray K = Black	N = Pigtail 18" (0.5 meter) T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	For Keypad readers only	-G3.0
iCLASS R40 Contactless Smart Card Reader: US, European & Asian Back Box Mount - (Wiegand) Read-Only, RoHS Compliant (C&D)	6120 6128	C	G = Charcoal Gray K = Black	N = Pigtail 18" (0.5 meter) T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	For Keypad readers only	-G3.0
iCLASS RK40 Contactless Smart Card Reader: With Keypad - (Wiegand) US, European & Asian Back Box Mount (C&D) Read-Only, RoHS Compliant	6130 6138	B	G = Charcoal Gray K = Black	N = Pigtail 18" (0.5 meter) T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	00 09 10 11 14 19 20 22	-G3.0
iCLASS RKL55 Contactless Smart Card Reader: Read, with LCD and Keypad US, European and Asian Back Box Mount (Wiegand) Wiegand or Clock and Data output (C&D) RoHS Compliant	6170 6178	B	K = Black	T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	00 09 10 11 14 19 20 22	-G3.0

*Revision numbers and availability are subject to change without notice. Consult factory for availability.

[1] Configuration Setting Options are as follows (Factory or Field Configurable):
00 = Beep on, LED normally red, reader flashes green on tag read
01 = Beep off, LED normally red, reader flashes green on tag read
02 = Beep on, LED normally off, reader flashes green on tag read
03 = Beep off, LED normally off, reader flashes green on tag read
04 = Beep on, LED normally red, host must flash green
05 = Beep off, LED normally red, host must flash green
06 = Beep on, LED normally off, host must flash red and/or green
07 = Beep off, LED normally off, host must flash red and/or green

[2] iCLASS Security Options (Factory or Field Configurable): See Application Note Number 28 for additional information on Key Management.
0 = Standard (Reads all iCLASS cards with unique keys diversified from HID master key)
1 = Custom, not valid with FIPS201 options (Reads only iCLASS cards with unique keys diversified from matching site specific master key; consult factory for availability)
C = Standard with Open Collector Tamper enabled
D = Custom with Open Collector Tamper enabled

[3] FIPS 201 (USA Government Smart Card) Formats:
7 = 200 bit, 8 = 64 bit, BCD, 9 = 64 bit, REVERSE BCD, A = 40 bit, BCD, C = 40 bit, REVERSE BCD, D = 75 bit GSA, F = HMAC + 200 bit, G = HMAC + 40 bit BCD, H = HMAC + 64 bit BCD, I = 80 bit combined, J = 32 bit HMAC, K = 200 bit & 14443A 56 bit CSN, M = 200 bit & 14443A 26 bit CSN, N = 75 bit GSA & 14443A 56 bit CSN, T = 14443A 32bit CSN.
For more information on the FIPS201 outputs, refer to the output selection guide: http://www.hidcorp.com/pdfs/products/fips201_technote.pdf

[4] Keypad data is output via Wiegand cable. Reader processes keystrokes. Configuration Setting options:
00 = Buffer one key, no parity, 4 bit message
09 = Buffer one key, add compliment, 8 bit message (Dorado)
10 = Buffer six keys and add parity
11 = Buffer one key and add parity
14 = Buffer one to five keys (Standard 26 bit output)
19 = Buffer four keys and add parity
20 = Single Key buffering
22 = Local PIN Verify. Requires User PIN code to be programmed into the iCLASS Credential at the factory or by using the iCLASS Card Programmer (consult factory for availability.)

RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)

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multiCLASS US Government FIPS 201 Compliant with HID or Indala Prox Read-Only Reader Part Numbers and Options

Card Reader Description	Base Part No.	Current Rev. No.*	Color Options	Hardware Options	Configuration Setting Options[1]	iCLASS Security[2]	FIPS201[3] Wiegand Output Mode	Keypad Configuration Setting Options[4]	US Government (FIPS 201) Required Part Suffix
iCLASS RP15 Combination Tech Reader: HID, AWID or Indala Prox, iCLASS & FIPS201- Mullion Mount (Wiegand) Read Only, RoHS Compliant (C&D)	6145 6143	C	G = Charcoal Gray K = Black	Pigtail Only N = HID and AWID Module D = Indala Module	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	For Keypad readers only	-G3.0
iCLASS RP40 Combination Technology Reader: HID, AWID, or Indala Prox, iCLASS & FIP201 US, European & Asian Back Box Mount - (Wiegand) Read Only, RoHS Compliant (C&D)	6125 6123	C	G = Charcoal Gray K = Black	Pigtail Only N = HID and AWID Module D = Indala Module	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	For Keypad readers only	-G3.0
iCLASS RPK40 Combination Tech Reader: HID, AWID, or Indala Prox, iCLASS & FIP201 US, European & Asian Back Box Mount - (Wiegand) Read Only, RoHS Compliant (C&D)	6136 6133	A	G = Charcoal Gray K = Black	Pigtail Only N = HID and AWID Module D = Indala Module	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	00 09 10 11 14 19 20 22	-G3.0

*Revision numbers and availability are subject to change without notice. Consult factory for availability.

[1] Configuration Setting Options are as follows (Factory or Field Configurable):
00 = Beep on, LED normally red, reader flashes green on tag read
01 = Beep off, LED normally red, reader flashes green on tag read
02 = Beep on, LED normally off, reader flashes green on tag read
03 = Beep off, LED normally off, reader flashes green on tag read
04 = Beep on, LED normally red, host must flash green
05 = Beep off, LED normally red, host must flash green
06 = Beep on, LED normally off, host must flash red and/or green
07 = Beep off, LED normally off, host must flash red and/or green

[2] iCLASS Security Options (Factory or Field Configurable): See Application Note Number 28 for additional information on Key Management.
0 = Standard (Reads all iCLASS cards with unique keys diversified from HID master key)
1 = Custom, not valid with FIPS201 options (Reads only iCLASS cards with unique keys diversified from matching site specific master key; consult factory for availability)
C = Standard with Open Collector Tamper enabled
D = Custom with Open Collector Tamper enabled

[3] FIPS 201 (USA Government Smart Card) Formats:
7 = 200 bit, 8 = 64 bit, BCD, 9 = 64 bit, REVERSE BCD, A = 40 bit, BCD, C = 40 bit, REVERSE BCD, D = 75 bit GSA, F = HMAC + 200 bit, G = HMAC + 40 bit BCD, H = HMAC + 64 bit BCD, I = 80 bit combined, J = 32 bit HMAC, K = 200 bit & 14443A 56 bit CSN, M = 200 bit & 14443A 26 bit CSN, N = 75 bit GSA & 14443A 56 bit CSN, T = 14443A 32bit CSN.
For more information on the FIPS201 outputs, refer to the output selection guide: http://www.hidcorp.com/pdfs/products/fips201_technote.pdf

[4] Keypad data is output via Wiegand cable. Reader processes keystrokes. Configuration Setting options:
00 = Buffer one key, no parity, 4 bit message
09 = Buffer one key, add compliment, 8 bit message (Dorado)
10 = Buffer six keys and add parity
11 = Buffer one key and add parity
14 = Buffer one to five keys (Standard 26 bit output)
19 = Buffer four keys and add parity
20 = Single Key buffering
22 = Local PIN Verify. Requires User PIN code to be programmed into the iCLASS Credential at the factory or by using the iCLASS Card Programmer (consult factory for availability.)

RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)

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multiCLASS US Government FIPS 201 Compliant with Magstripe Read-Only Reader Part Numbers and Options

Card Reader Description	Base Part No	Current Rev No*	Color Options	Hardware Options	Configuration Setting Options [1]	iCLASS Security [2]	FIPS201[3] Wiegand Output Mode	Keypad Configuration Setting Options [4]	US Government (FIPS 201) Required Part Suffix		Magnetic Stripe Data Output Non-G3.0 [5]
iCLASS RMK40 Combination Tech Reader, Wiegand Magnetic stripe, iCLASS US/EU APAC Back Box Mount, Wall switch form factor Read Only, RoHS Compliant	6230	C	K = Black	N = Pigtail T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	00 09 10 11 14 19 20 22	-G3.0	-	0 5 6 7 8 9 A B C D E F
iCLASS RMPK40 Combination Tech Reader, Wiegand Magnetic stripe, HID and AWID Prox, iCLASS US/EU APAC Back Box Mount, Wall switch form factor Read Only, RoHS Compliant	6236	C	K = Black	N = Pigtail T = Terminal Strip	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	00 09 10 11 14 19 20 22	-G3.0	-	0 5 6 7 8 9 A B C D E F

*Revision numbers and availability are subject to change without notice. Consult factory for availability.

[1] Configuration Setting Options are as follows (Factory or Field Configurable):
00 = Beep on, LED normally red, reader flashes green on tag read
01 = Beep off, LED normally red, reader flashes green on tag read
02 = Beep on, LED normally off, reader flashes green on tag read
03 = Beep off, LED normally off, reader flashes green on tag read
04 = Beep on, LED normally red, host must flash green
05 = Beep off, LED normally red, host must flash green
06 = Beep on, LED normally off, host must flash red and/or green
07 = Beep off, LED normally off, host must flash red and/or green

[2] iCLASS Security Options (Factory or Field Configurable)
0 = Standard (Reads all iCLASS cards with unique keys diversified from HID master key)
1 = Custom,(Reads only iCLASS cards with unique keys diversified from matching site specific master key; consult factory for availability)
C = Standard with Open Collector Tamper enabled
D = Custom with Open Collector Tamper enabled

[3] FIPS 201 (USA Government Smart Card) Formats:
7 = 200 bit, 8 = 64 bit, BCD, 9 = 64 bit, REVERSE BCD, A = 40 bit, BCD, C = 40 bit, REVERSE BCD, D = 75 bit GSA, F = HMAC + 200 bit, G = HMAC + 40 bit BCD, H = HMAC + 64 bit BCD, I = 80 bit combined, J = 32 bit HMAC, K = 200 bit & 14443A 56 bit CSN, M = 200 bit & 14443A 26 bit CSN, N = 75 bit GSA & 14443A 56 bit CSN, T = 14443A 32bit CSN.

For more information on the FIPS201 outputs, refer to the output selection guide: http://www.hidcorp.com/pdfs/products/fips201_technote.pdf

[4] Keypad data is output via Wiegand cable. Reader processes keystrokes. Configuration setting options:
00 = Buffer one key, no parity, 4 bit message
09 = Buffer one key, add compliment, 8 bit message (Dorado)
10 = Buffer six keys and add parity
11 = Buffer one key and add parity
14 = Buffer one to five keys (Standard 26 bit output)
19 = Buffer four keys and add parity
20 = Single Key buffering
22 = Local PIN Verify. Requires User PIN code to be programmed into the iCLASS Credential at the factory or by using the iCLASS Card Programmer (consult factory for availability.)

[5] Magnetic Stripe Data Output
0 = Northern card to 32 bit Wiegand, (FC=16 bits. ID=16 bits)
1 = ABA card, all bits raw data – C&D
4 = ABA card all ABA digits, plus 10 leading & 10 trailing 0's – C&D
5 = ABA card all ABA digits, plus 10 leading & 10 trailing 0's – Wiegand
6 = ABA card convert last 4 ABA digits in first field to binary and output as 26 bit Wiegand
7 = ABA card convert last 7 ABA digits in first field to binary and output as 26 bit Wiegand
8 = EMPI card to 26 bit Wiegand
9 = EMPI card to 34 bit Wiegand
A = ABA card, convert last 9 ABA digits in first field to binary and output as 34 bit Wiegand
B = Basic MS raw output - all bits Wiegand in order received
C = ABA to 26 bit Wiegand (FC=8 bits, ID=16 bits)
D = ABA to 34 bit Wiegand(FC=16 bits ID=16 bits)
E = ABA to 34 bit Wiegand (Mercury compatible) (FC=12 bits, ID=20 bits)
F = ABA to 26 bit Wiegand

All magnetic stripe format outputs match option B (Basic MS raw output – all bits Wiegand in order received), documented on page 6 of http://www.hidglobal.com/documents/multiclass_magstripe_reader_an_en.pdf . To modify magstripe output, contact technical support department to order desired configuration card from Table 2, column "Configuration Card", on page 6.

RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)

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iCLASS US Government FIPS 201 Read/Write Reader Part Numbers and Options

Card Reader Description	Base Part No.	Current Rev. No.*	Color Options	Hardware Options[5]	Configuration Setting Options[1]	iCLASS Security[2]	FIPS201[3] Wiegand Output Mode	Keypad Configuration Setting Options[4]	US Government (FIPS 201) Required Part Suffix
iCLASS RW100 Contactless Smart Card Reader/Writer: Read/Write Mullion Mount Wiegand and RS232 or RS485 or USB or UART (RoHS Compliant)	6101	C	G = Gray K = Black	T = RS232 4 = RS485(Full-Duplex) M = RS485(Half-Duplex) U = USB B = UART to UART	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	For Keypad readers only	-G3.0
iCLASS RW150 Contactless Smart Card Reader/Writer: Read/Write Mullion Mount Wiegand and RS232 or RS485 or USB or UART (RoHS Compliant)	6141	C	G = Gray K = Black	T = RS232 4 = RS485(Full-Duplex) M = RS485(Half-Duplex) U = USB B = UART to UART	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	For Keypad readers only	-G3.0
iCLASS RW300 Contactless Smart Card Reader/Writer: Read/Write European and Asian Back Box Mount Wiegand and RS232 or RS485 or USB or UART (RoHS Compliant)	6111	C	G = Gray K = Black	T = RS232 4 = RS485(Full-Duplex) M = RS485(Half-Duplex) U = USB B = UART to UART	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	For Keypad readers only	--G3.0
iCLASS RW400 Contactless Smart Card Reader/Writer: Read/Write US, European and Asian Back Box Mount Wiegand and RS232 or RS485 or USB or UART (RoHS Compliant)	6121	C	G = Gray K = Black	T = RS232 4 = RS485(Full-Duplex) M = RS485(Half-Duplex) U = USB B = UART to UART	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	For Keypad readers only	-G3.0
iCLASS RWK400 Contactless Smart Card Reader/Writer: Read/Write, with Keypad US, European and Asian Back Box Mount (RoHS Compliant) Wiegand Output, and/or RS-232/422 or USB or UART	6131	B	G = Gray K = Black	T = RS232 4 = RS485(Full-Duplex) M = RS485(Half-Duplex) U = USB B = UART to UART	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	00 09 10 11 14 19 20 22	-G3.0
iCLASS RWKL550 Contactless Smart Card Reader/Writer: Read/Write, with LCD and Keypad US, European and Asian Back Box Mount Wiegand Output, and/or RS-232, RS- 485, USB or UART (RoHS Compliant)	6171	B	K = Black	T = RS232 4 = RS485(Full-Duplex) M = RS485(Half-Duplex) U = USB B = UART to UART	00 01 02 03 04 05 06 07	0 1 C D	7 8 9 A C D F G H I J K M N T	00 09 10 11 14 19 20 22	-G3.0

*Revision numbers and availability are subject to change without notice. Consult factory for availability.

[1] Configuration Setting Options are as follows (Factory or Field Configurable):
00 = Beep on, LED normally red, reader flashes green on tag read
01 = Beep off, LED normally red, reader flashes green on tag read
02 = Beep on, LED normally off, reader flashes green on tag read
03 = Beep off, LED normally off, reader flashes green on tag read
04 = Beep on, LED normally red, host must flash green
05 = Beep off, LED normally red, host must flash green
06 = Beep on, LED normally off, host must flash red and/or green
07 = Beep off, LED normally off, host must flash red and/or green

[2] iCLASS Security options (Factory or Field Configurable): See Application Note Number 28 for additional information on Key Management.
0 = Standard (Reads all iCLASS cards with unique keys diversified from HID master key)
1 = Elite Key (Reads only iCLASS cards with unique keys diversified from matching site specific master key; consult factory for availability)
C = Standard with Open Collector Tamper enabled
D = Custom with Open Collector Tamper enabled

[3] FIPS 201 (USA Government Smart Card) Formats:
7 = 200 bit, 8 = 64 bit, BCD, 9 = 64 bit, REVERSE BCD, A = 40 bit, BCD, C = 40 bit, REVERSE BCD, D = 75 bit GSA, F = HMAC + 200 bit, G = HMAC + 40 bit BCD, H = HMAC + 64 bit BCD, I = 80 bit combined, J = 32 bit HMAC,
K = 200 bit & 14443A 56 bit CSN, M = 200 bit & 14443A 26 bit CSN, N = 75 bit GSA & 14443A 56 bit CSN, T = 14443A 32bit CSN.

[4] Keypad data is output via Wiegand cable. Reader processes keystrokes. Configuration Setting options:
00 = Buffer one key, no parity, 4 bit message
09 = Buffer one key, add compliment, 8 bit message (Dorado)
10 = Buffer six keys and add parity
11 = Buffer one key and add parity
14 = Buffer one to five keys (Standard 26 bit output)
19 = Buffer four keys and add parity
20 = Single Key buffering
22 = Local PIN Verify. Requires User PIN code to be programmed into the iCLASS Credential at the factory or by using the iCLASS Card Programmer (consult factory for availability.)

[5] All the following communication modules allow host driven communication using the iCLASS Serial Protocol. All the following communication modules (except USB) allow for card ID reporting instantiated by the reader. For multi-drop functionality, see iCLASS HADP/OSDP Readers. All Reader/Writers are terminal strip readers. RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)

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iCLASS US Government FIPS 201 Compliant HADP/OSDP Reader Part Numbers and Options

Card Reader Description	Base Part No	Current Rev No*	Color Options	Hardware Options [5]	Configuration Settings Options	iCLASS Security	FIPS201[3] Wiegand Output Mode	Keypad Configuration[4]	US Government (FIPS 201) Required Part Suffix
iCLASS R15 Contactless Smart Card Reader HADP/OSDP Enabled Mullion Mount Read-Only, RoHS Compliant	6142	C	G = Charcoal Gray K = Black	P = Terminal Strip with HADP/OSDP (RS485) Module	00 01 02 03 04 05 06 07	0 1 P Q	7 8 9 A C D F G H I J K M N T	For keypad readers only	-G3.0
iCLASS R30 Contactless Smart Card Reader HADP/OSDP Enabled European and Asian Back Box Mount Read-Only, RoHS Compliant	6112	C	G = Charcoal Gray K = Black	P = Terminal Strip with HADP/OSDP (RS485) Module	00 01 02 03 04 05 06 07	0 1 P Q	7 8 9 A C D F G H I J K M N T	For keypad readers only	-G3.0
iCLASS R40 Contactless Smart Card Reader HADP/OSDP Enabled US, European and Asian Back Box Mount Read-Only, RoHS Compliant	6122	C	G = Charcoal Gray K = Black	P = Terminal Strip with HADP/OSDP (RS485) Module	00 01 02 03 04 05 06 07	0 1 P Q	7 8 9 A C D F G H I J K M N T	For keypad readers only	-G3.0
iCLASS RK40 Contactless Smart Card Keypad Reader HADP/OSDP Enabled US, European and Asian Back Box Mount Read-Only, RoHS Compliant	6132	B	G = Charcoal Gray K = Black	P = Terminal Strip with HADP/OSDP (RS485) Module	00 01 02 03 04 05 06 07	0 1 P Q	7 8 9 A C D F G H I J K M N T	00 09 10 11 14 19 20 22	-G3.0
iCLASS RKL55 Contactless Smart Card LCD/Keypad Reader HADP/OSDP Enabled US, European and Asian Back Box Mount Read-Only, RoHS Compliant	6172	B	K = Black	P = Terminal Strip with HADP/OSDP (RS485) Module	00 01 02 03 04 05 06 07	0 1 P Q	7 8 9 A C D F G H I J K M N T	00 09 10 11 14 19 20 22	-G3.0

*Revision numbers and availability are subject to change without notice. Consult factory for availability.

[1] Configuration Setting Options are as follows (Factory or Field Configurable):
00 = Beep on, LED normally red, reader flashes green on tag read
01 = Beep off, LED normally red, reader flashes green on tag read
02 = Beep on, LED normally off, reader flashes green on tag read
03 = Beep off, LED normally off, reader flashes green on tag read
04 = Beep on, LED normally red, host must flash green
05 = Beep off, LED normally red, host must flash green
06 = Beep on, LED normally off, host must flash red and/or green
07 = Beep off, LED normally off, host must flash red and/or green

[2] iCLASS Security Options (Factory or Field Configurable): See Application Note Number 28 for additional information on Key Management.
0 = Standard (Reads all iCLASS cards with unique keys diversified from HID master key)
1 = Elite Key (Reads only iCLASS cards with unique keys diversified from matching site specific master key; consult factory for availability)
P = Standard with OSDP Tamper enabled
Q = Elite with OSDP Tamper enabled

[3] FIPS 201 (USA Government Smart Card) Formats:
7 = 200 bit, 8 = 64 bit, BCD, 9 = 64 bit, REVERSE BCD, A = 40 bit, BCD, C = 40 bit, REVERSE BCD, D = 75 bit GSA, F = HMAC + 200 bit, G = HMAC + 40 bit BCD, H = HMAC + 64 bit BCD, I = 80 bit combined, J = 32 bit HMAC, K = 200 bit & 14443A 56 bit CSN, M = 200 bit & 14443A 26 bit CSN, N = 75 bit GSA & 14443A 56 bit CSN, T = 14443A 32bit CSN.

[4] Keypad data is output via Wiegand cable. Reader processes keystrokes. HADP/OSDP interface supports standard OSDP keypad output. Configuration Setting options for Wiegand interface includes:
00 = Buffer one key, no parity, 4 bit message
09 = Buffer one key, add compliment, 8 bit message (Dorado)
10 = Buffer six keys and add parity
11 = Buffer one key and add parity
14 = Buffer one to five keys (Standard 26 bit output)
19 = Buffer four keys and add parity
20 = Single Key buffering
22 = Local PIN Verify. Requires User PIN code to be programmed into the iCLASS Credential at the factory or by using the iCLASS Card Programmer (consult factory for availability.)

[5] The HADP/OSDP communication modules allow host driven communication using HADP (HID Advanced Device Protocol) / OSDP (Open Supervised Device Protocol) over an RS485 (Half-Duplex) hardware interface. RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)

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iCLASS / multiCLASS Transit Read-Only Reader Part Numbers and Options

Card Reader Description	Base Part No.	Current Rev. No.*	Color Options	Hardware Options	Configuration Setting Options[1]	iCLASS Security[2]	MIFARE CSN[3], FeliCa™ IDm or CEPAS Output	Keypad Configuration Setting Options[5]	Optional Custom
iCLASS R10-T Contactless Smart Card Reader iCLASS, FeliCa and CEPAS Mullion Mount (Wiegand) Read-Only, RoHS Compliant	6109	C	G = Charcoal Gray K = Black	N = Pigtail 18" (0.5 meter)	00 01 02 03 04 05 06 07	0	5 6 7 8 9 A B C D E F	For Keypad readers only	-XXXX Y
iCLASS R15-T Contactless Smart Card Reader iCLASS, FeliCa and CEPAS Mullion Mount (Wiegand) Read-Only, RoHS Compliant	6149	C	G = Charcoal Gray K = Black	N = Pigtail 18" (0.5 meter)	00 01 02 03 04 05 06 07	0	5 6 7 8 9 A B C D E F	For Keypad readers only	-XXXX Y
iCLASS R30-T Contactless Smart Card Reader iCLASS, FeliCa and CEPAS European & Asian Back Box Mount (Wiegand) Read-Only, RoHS Compliant	6119	C	G = Charcoal Gray K = Black	N = Pigtail 18" (0.5 meter)	00 01 02 03 04 05 06 07	0	5 6 7 8 9 A B C D E F	For Keypad readers only	-XXXX Y
iCLASS R40-T Contactless Smart Card Reader iCLASS, FeliCa and CEPAS US, European & Asian Back Box Mount (Wiegand) Read-Only, RoHS Compliant	6129	C	G = Charcoal Gray K = Black	N = Pigtail 18" (0.5 meter)	00 01 02 03 04 05 06 07	0	5 6 7 8 9 A B C D E F	For Keypad readers only	-XXXX Y
iCLASS RK40-T Contactless Smart Card Reader with Keypad - iCLASS and FeliCa (Wiegand) US, European & Asian Back Box Mount Read-Only, RoHS Compliant	6139	C	G = Charcoal Gray K = Black	N = Pigtail 18" (0.5 meter)	00 01 02 03 04 05 06 07	0	5 6 7 8 9 A B C D E F	00 09 10 11 14 19 20 22	-XXXX Y
multiCLASS RP15-T Combination Technology Reader HID, AWID, or Indala Prox, iCLASS, FeliCa and CEPAS Mullion Mount (Wiegand) Read Only, RoHS Compliant	6144	C	G = Charcoal Gray K = Black	Pigtail Only N = HID and AWID Module D = Indala Module	00 01 02 03 04 05 06 07	0	5 6 7 8 9 A B C D E F	For Keypad readers only	-XXXX Y
multiCLASS RP40-T Combination Technology Reader HID, AWID, or Indala Prox, iCLASS, FeliCa and CEPAS US, European & Asian Back Box Mount - (Wiegand) Read Only, RoHS Compliant	6124	C	G = Charcoal Gray K = Black	Pigtail Only N = HID and AWID Module D = Indala Module	00 01 02 03 04 05 06 07	0	5 6 7 8 9 A B C D E F	For Keypad readers only	-XXXX Y
multiCLASS RPK40-T Combination Technology Reader HID, AWID, or Indala Prox, iCLASS and FeliCa US, European & Asian Back Box Mount - (Wiegand) Read Only, RoHS Compliant	6134	C	G = Charcoal Gray K = Black	Pigtail Only N = HID and AWID Module D = Indala Module	00 01 02 03 04 05 06 07	0	5 6 7 8 9 A B C D E F	00 09 10 11 14 19 20 22	-XXXX Y

* Transit readers have the ability to read FeliCa IDm's and CEPAS CAN or CSN.

**Revision numbers are subject to change without notice. Consult factory for availability.

[1] Configuration Setting Options are as follows (Factory or Field Configurable):

00 = Beep on, LED normally red, reader flashes green on tag read
01 = Beep off, LED normally red, reader flashes green on tag read
02 = Beep on, LED normally off, reader flashes green on tag read
03 = Beep off, LED normally off, reader flashes green on tag read
04 = Beep on, LED normally red, host must flash green
05 = Beep off, LED normally red, host must flash green
06 = Beep on, LED normally off, host must flash red and/or green
07 = Beep off, LED normally off, host must flash red and/or green

[2] iCLASS Security Options (Factory or Field Configurable): See Application Note Number 28 for additional information on Key Management.

0 = Standard (Reads all iCLASS cards with unique keys diversified from HID master key)

[3] MIFARE Card Serial Number (CSN,) FeliCa IDm, CEPAS CAN/CSN output modes are as follows (Factory or Field Configurable). Refer to the "iCLASS Reader Wiegand Output Configuration Guide" for more details. (SETTING NOT APPLICABLE WITH ELITE ORDERS. ELITE READERS DO NOT READ MIFARE CSN.)

5 = 64bits LSB Felica or 64bits MSB CEPAS CAN
6 = 64bits LSB Felica or 64bits MSB CEPAS CSN
7 = 64bits LSB Felica or 64 bits MSB CEPAS CAN or MIFARE
8 = 64bits LSB Felica or 64 bits MSB CEPAS CSN or MIFARE
9 = 26 bit (Even parity +24 bits LSB + Odd Parity) Felica or CEPAS CAN
A = 26 bit (Even parity +24 bits LSB + Odd Parity) Felica or CEPAS CSN
B = 26 bit (Even parity +24 bits LSB + Odd Parity) Felica or CEPAS CAN or MIFARE
C = 26 bit (Even parity +24 bits + Odd Parity) Felica or CEPAS CSN or MIFARE
D = 64 bit LSB Felica
E = 26 bit (Even parity + 24 bits LSB + Odd parity) Felica
F = 64 bits LSB FeliCa or 64 bits MIFARE

[5] Keypad data is output via Wiegand cable. Reader processes keystrokes. Configuration Setting options:

00 = Buffer one key, no parity, 4 bit message
09 = Buffer one key, add compliment, 8 bit message (Dorado)
10 = Buffer six keys and add parity
11 = Buffer one key and add parity
14 = Buffer one to five keys (Standard 26 bit output)
19 = Buffer four keys and add parity
20 = Single Key buffering
22 = Local PIN Verify. Requires User PIN code to be programmed into the iCLASS Credential at the factory or by using the iCLASS Card Programmer (consult factory for availability.)

RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)

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iCLASS High Frequency Migration Readers

MIFARE DESFire EV1 and MIFARE Classic Compliant Read-Only Part Numbers and Options

iCLASS Card Reader Description 13.56 MHz Only Wiegand Communication	Base Part No	Current Rev No*	Color Options	Hardware Options	Configuration[1]
Model: RS10, Read-Only Wiegand Output iCLASS High Frequency Migration Reader MIFARE DESFire EV1 & MIFARE Classic Custom Data Application Support Mullion Mount	7100	C	K = Black	T = Terminal Strip, No Spacer S = Terminal Strip & Spacer	-EVP00000
Model: RS40, Read-Only Wiegand Output iCLASS High Frequency Migration Reader MIFARE DESFire EV1 & MIFARE Classic Custom Data Application Support Wall Switch Mount. EU/US/Asian Mounting Holes.	7120	C	K = Black	T= Terminal Strip, No Spacer S = Terminal Strip & Spacer	-EVP00000
Model: RSK40, Read-Only Wiegand Output with Keypad iCLASS High Frequency Migration Reader MIFARE DESFire EV1 & MIFARE Classic Custom Data Application Support Wall Switch Mount. EU/US/Asian Mounting Holes.	7130	C	K = Black	T= Terminal Strip, No Spacer S = Terminal Strip & Spacer	-EVP00000

*Revision numbers and availability are subject to change without notice. Consult the factory for availability.

[1] Default configuration is Beeper On, LED Normally Red, LED Flashes Green on card read, MIFARE CSN output 32 bit, Keypad 4-bit output, Tamper Disabled. For more configuration options, consult your regional technical support representative. Custom reader configurations support up to two (2) of the following: MIFARE Classic, MIFARE DESFire EV1 (including DESFire 0.6 backward compatible configurations). Additionally readers support ISO14443A CSN and Prox (multiCLASS model reader required).

Notes:
- All readers RoHS compliant. RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)
- Contact the factory for pricing, availability, and minimum order quantity.

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multiCLASS High Frequency Migration Readers

MIFARE DESFire EV1 and MIFARE Classic Compliant Read-Only Part Numbers and Options

multiCLASS Card Reader Description 13.56 MHz & 125 kHz Support Wiegand Communication	Base Part No	Current Rev No*	Color Options	Hardware Options	Configuration[1]
Model: RSP15, Read-Only Wiegand Output multiCLASS High Frequency Migration Reader MIFARE DESFire EV1 & MIFARE Classic Custom Data Application Support 125 kHz HID Prox Support Mullion Mount	7145	C	K = Black	N = HID Prox w/ Pigtail, No Spacer U = HID Prox w/ Pigtail & Spacer	-EVP00000
Model: RSP40, Read-Only Wiegand Output multiCLASS High Frequency Migration Reader MIFARE DESFire EV1 & MIFARE Classic Custom Data Application Support 125 kHz HID Prox Support Wall Switch Mount. EU/US/Asian Mounting Holes.	7125	C	K = Black	N = HID Prox w/ Pigtail, No Spacer U = HID Prox w/ Pigtail & Spacer	-EVP00000
Model: RSPK40, Read-Only Wiegand Output with Keypad multiCLASS High Frequency Migration Reader MIFARE DESFire EV1 & MIFARE Classic Custom Data Application Support 125 kHz HID Prox Support Wall Switch Mount. EU/US/Asian Mounting Holes.	7136	C	K = Black	N = HID Prox w/ Pigtail, No Spacer U = HID Prox w/ Pigtail & Spacer	-EVP00000

*Revision numbers and availability are subject to change without notice. Consult the factory for availability.

[1] Default configuration is Beeper On, LED Normally Red, LED Flashes Green on card read, MIFARE CSN output 32 bit, Keypad 4-bit output, Tamper Disabled. For more configuration options, consult your regional technical support representative. Custom reader configurations support up to two (2) of the following: MIFARE Classic, MIFARE DESFire EV1 (including DESFire 0.6 backward compatible configurations). Additionally readers support ISO14443A CSN and Prox (multiCLASS model reader required).

Notes:
- All readers RoHS compliant. RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)
- Contact the factory for pricing, availability, and minimum order quantity.

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iCLASS High Frequency Migration Readers - OSDP

MIFARE DESFire EV1 and MIFARE Classic Compliant OSDP Compliant Reader Part Numbers and Options

iCLASS Card Reader Description 13.56 MHz Only OSDP Communication	Base Part No	Current Rev No*	Color Options	Hardware Options	Configuration[1]
Model: RS10, OSDP Communication to and from Panel iCLASS High Frequency Migration Reader MIFARE DESFire EV1 & MIFARE Classic Custom Data Application Support Mullion Mount	7102	C	K = Black	T = Terminal Strip, No Spacer S = Terminal Strip & Spacer	-EVP00120
Model: RS40, OSDP Communication to and from Panel iCLASS High Frequency Migration Reader MIFARE DESFire EV1 & MIFARE Classic Custom Data Application Support Wall Switch Mount. EU/US/Asian Mounting Holes.	7122	C	K = Black	T= Terminal Strip, No Spacer S = Terminal Strip & Spacer	-EVP00120
Model: RSK40, OSDP Communication to and from Panel iCLASS High Frequency Migration Reader MIFARE DESFire EV1 & MIFARE Classic Custom Data Application Support Wall Switch Mount. EU/US/Asian Mounting Holes.	7132	C	K = Black	T= Terminal Strip, No Spacer S = Terminal Strip & Spacer	-EVP00120

*Revision numbers and availability are subject to change without notice. Consult the factory for availability.

[1] Default configuration is Beeper On, LED Normally Red, LED Flashes Green on card read, MIFARE CSN output 32 bit, Keypad 4-bit output, Tamper Disabled. For more configuration options, consult your regional technical support representative. Custom reader configurations support up to two (2) of the following: MIFARE Classic, MIFARE DESFire EV1 (including DESFire 0.6 backward compatible configurations). Additionally readers support ISO14443A CSN and Prox (multiCLASS model reader required).

Notes:
- RoHS compliant Readers are appropriately marked on reader and box. (RoHS or Restriction of Hazardous Substances Directive restricts certain hazardous substances in electrical and electronic equipment.)
- Contact the factory for pricing, availability, and minimum order quantity.

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Reader Wiegand Output Configuration Guide

MIFARE CSN[1, 2] Wiegand Data Output formats	Comments	Model Number
Any HID/OEM format.	As encoded into the iCLASS card by HID factory or field programmer.	All models
32-bit, MIFARE Card Serial Number.	For MIFARE Cards only, random number burned into card chip.	XXXXBXX0000YY
32-bit, MIFARE Card Serial Number, reverse output.	For MIFARE Cards only, reverse output matches HID MIFARE Reader base model number: 6055A and	XXXXBXX0001YY
26-bit, derived from MIFARE Card Serial number.	For MIFARE Cards only, ID = 16 lower bits of CSN. Reader generates fixed FC - defaults to 001, but can be	XXXXBXX0002YY
34-bit, MIFARE Card Serial number plus beginning/ending parity.	For MIFARE Cards only	XXXXBXX0003YY
40-bit, MIFARE Card Serial number plus 8-bit checksum.	For MIFARE Cards only, Checksum per Philips standard.	XXXXBXX0004YY
37 bit, derived from MIFARE Ultralight or DESFire® Card Serial Number	For Ultralight or DESFire® Cards only, 37 lower bits of CSN in reverse order (Keypad Readers Only)	61XXBXX0005YY
56 bit, MIFARE Ultralight or DESFire® Card Serial Number	For Ultralight or DESFire® Card Only, 56 bit CSN in reverse order (Keypad Readers Only)	61XXBXX0006YY

Notes:

1. MIFARE CSN = Card Serial Number, a 32-bit random number burned into the chip by the chip manufacturer (not HID).
2. iCLASS 64 bit CSN is never transmitted via the Wiegand Output. See HID Application Note Number 28 for details.

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iCLASS Programmer Ordering Guide

All iCLASS and bioCLASS Programmers are now located in the Credential Programmer How To Order Guide.

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SmartID Readers

SmartID Single-Technology 13.56 MHz Readers Part Numbers and Options

Card Reader Description	Base Part No.	Current Rev. No.	Color Options	Application[1]
SmartID S10 Contactless Smart Card Reader Mullion Mount, Terminal Strip Wiegand, Clock-and-Data, RS232, RS485 or RS422 (RoHS Compliant)	8030	D	S = Silver	HM = HID MIFARE (default) HC = HID MIFARE (non-default) CM = MIFARE DM = Dual MIFARE DF = DESFire
SmartID SW100 Contactless Smart Card Reader/Writer Mullion Mount, Terminal Strip Host driven RS232, RS485 or RS422 (RoHS Compliant)	8030	D	S = Silver	TC = T/CL Protocol RW = 3964 Protocol (Legacy)
SmartID SK10 Contactless Smart Card Keypad Reader Mullion Mount, Terminal Strip Wiegand, Clock-and-Data, RS232, RS485 or RS422 (RoHS Compliant)	8031	D	S = Silver	HM = HID MIFARE (default) HC = HID MIFARE (non-default) CM = MIFARE DM = Dual MIFARE DF = DESFire
SmartID SWK100 Contactless Smart Card Keypad Reader/Writer Mullion Mount, Terminal Strip Host driven RS232, RS485 or RS422 (RoHS Compliant)	8031	D	S = Silver	TC = T/CL Protocol RW = 3964 Protocol (Legacy)

[1] All part numbers generated by the above grid (except HM = HID MIFARE) require an additional accompanying "format configuration". The format configuration is a separate part number that is combined on a PO with the above part number to make up the full definition of a reader. Format configurations are either generic (for public use) or custom. For generic format information, see SmartID – Generic Configuration Document (http://www.hidcorp.com/documents/smartid_configuration_guide_en.pdf). For custom format definition, see Custom SmartID Format, MIFARE or DESFire Requirements on subsequent page. For more information on applications and format configurations, reference the whitepaper SmartID Application and Configurations (http://www.hidcorp.com/documents/smartid_apps_configs.pdf). The HM application provides standard reader configurations, including beeper and LEDs. The HC application allows for configuration of beeper and LEDs.

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SmartTRANS Multi-Technology Readers Part Numbers and Options (13.56 MHz & 125 kHz)

Card Reader Description	Base Part No.	Current Rev. No.	Color Options	Application[1]
SmartID SP10 Multi-Technology Contactless Smart Card and Prox Reader HID Prox and AWID (125 kHz) or Indala Prox Mullion Mount, Terminal Strip Wiegand, Clock-and-Data, RS232, RS485 or RS422 (RoHS Compliant)	8100 = HID 8140 = Indala	D	S = Silver	HM = HID MIFARE (default) HC = HID MIFARE (non-default) CM = MIFARE DF = DESFire
SmartID SPK10 Multi-Technology Contactless Smart Card and Prox Keypad Reader HID Prox and AWID (125 kHz) or Indala Prox Mullion Mount, Terminal Strip Wiegand, Clock-and-Data, RS232, RS485 or RS422 (RoHS Compliant)	8101 = HID 8141 = Indala	D	S = Silver	HM = HID MIFARE (default) HC = HID MIFARE (non-default) CM = MIFARE DF = DESFire

[1] All part numbers generated by the above grid (except HM = HID MIFARE) require an additional accompanying "format configuration". The format configuration is a separate part number that is combined on a PO with the above part number to make up the full definition of a reader. Format configurations are either generic (for public use) or custom. For generic format information, see SmartID – Generic Configuration Document (http://www.hidcorp.com/documents/smartid_configuration_guide_en.pdf). For custom format definition, see Custom SmartID Format, MIFARE or DESFire Requirements on subsequent page. For more information on applications and format configurations, reference the whitepaper SmartID Application and Configurations (http://www.hidcorp.com/documents/smartid_apps_configs_wp_en.pdf). The HM application provides standard reader configurations, including beeper and LEDs. The HC application allows for configuration of beeper and LEDs.

SmartTOUCH Biometric Readers Part Numbers and Options

Card Reader Description	Part No. Prefix	Base Part No.	Application[1]
SmartID SB10 Indoor Contactless Smart Card Reader with Biometrics Fingerprint reader matches templates stored on 13.56 MHz credentials Mullion Mount, Terminal Strip Wiegand, Clock-and-Data, RS232, RS485 or RS422 (RoHS Compliant)	800-	805	0 = MIFARE 2 = DESFire
SmartID SBK10 Indoor Contactless Smart Card Keypad Reader with Biometrics Fingerprint reader matches templates stored on 13.56 MHz credentials Mullion Mount, Terminal Strip Wiegand, Clock-and-Data, RS232, RS485 or RS422 (RoHS Compliant)	800-	805	5 = MIFARE 7 = DESFire

[1] All part numbers generated by the above grid require an additional accompanying "format configuration". The format configuration is a separate part number that is combined on a PO with the above part number to make up the full definition of a reader. Format configurations are either generic (for public use) or custom. For generic format information, see SmartID – Generic Configuration Document (http://www.hidcorp.com/documents/smartid_configuration_guide_en.pdf). For custom format definition, see Custom SmartID Format, MIFARE or DESFire Requirements on subsequent page. For more information on applications and format configurations, reference the whitepaper SmartID Application and Configurations (http://www.hidcorp.com/documents/smartid_apps_configs.pdf).

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SmartTOOLS Card Programming Software and Devices Part Numbers and Options

All SmartID Programmers are now located in the Credential Programmer How To Order Guide.

SmartID Desktop Reader/Writer Part Numbers and Options

Contactless Smart Card Reader/Writer, Desktop, USB and RS232

800-1063*	SmartID SWD100 Reader/Writer, MIFARE & ISO14443-4 DESFire & SmartxMX, USB with PC/SC Protocol
800-8240*	SmartID SWD100 Reader/Writer, MIFARE & ISO14443-4 DESFire & SmartxMX, RS232 with T=CL Protocol

To complete the part number, specify formatting information.
For generic format information, see SmartID – Generic Configuration Document (http://www.hidcorp.com/documents/smartid_configuration_guide_en.pdf).
(http://www.hidcorp.com/documents/smartid_configuration.pdf)
For custom format definition, see Custom Format MIFARE® or DESFire® Reader Ordering Guide.

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SmartID Reader Cross Reference

GEN 1 & 2

Generation 1		Generation 2	
Part Number	Description	Part Number[1]	Description
800-8030 800-8060	ISO 14443-3 MIFARE Sector ISO 14443-4 DESFire reader with MIFARE configuration	8030DSCM	SmartID S10 Read Only, Custom MIFARE
800-8045 800-8075	ISO 14443-3 MIFARE PIN Reader ISO 14443-4 DESFire PIN reader with MIFARE configuration	8031DSCM	SmartID SK10 Read Only Keypad, Custom MIFARE
800-8061 800-8060 800-8063	ISO 14443-3 DESFire reader ISO 14443-3 DESFire reader (FIPS 201 mid point compliant) ISO 14443-3 DESFire and MIFARE reader (FIPS 201 mid point compliant)	8030DSDF	SmartID S10 Read Only, DESFIRE
800-8076 800-8075 800-8063	ISO 14443-3 DESFire PIN reader ISO 14443-3 DESFire PIN reader (FIPS 201 mid point compliant) ISO 14443-3 DESFire and MIFARE PIN reader (FIPS 201 mid point compliant)	8031DSDF	SmartID SK10 Read Only Keypad, DESFIRE
800-8062	ISO 14443-3 Dual MIFARE reader	8030DSDM	SmartID S10 Read Only, DUAL MIFARE
800-8077	ISO 14443-3 Dual MIFARE PIN reader	8031DSDM	SmartID SK10 Read Only Keypad, DUAL MIFARE
800-8080	ISO 14443-4 reader (ISO 7816-4, PIV II Compliant)	N/A	Not Available. See iCLASS FIPS 201 Readers
800-8085	ISO 14443-4 PINpad reader (ISO 7816-4, PIV II Compliant)	N/A	Not Available. See iCLASS FIPS 201 Readers
800-8030TC	ISO 14443-4 Reader/Writer, T=CL Protocol	8030DSTC	SmartID SW100 Reader/Writer, MIFARE & ISO14443-4 DESFire & SmartMX, T=CL Protocol
800-8045TC	ISO 14443-4 Reader/Writer with PINpad, T=CL Protocol	8031DSTC	SmartID SW100 Reader/Writer with Keypad , MIFARE & ISO14443-4 DESFire & SmartMX, T=CL Protocol
800-8030	ISO 14443-4 Reader/Writer, 3964 Protocol	8030DSRW	SmartID SW100 Reader/Writer, 3964 Protocol
800-8045	ISO 14443-4 Reader/Writer with PINpad, 3964 Protocol	8031DSRW	SmartID SW100 Reader/Writer with Keypad, 3964 Protocol
800-8100CM	SmartTRANS reader (ISO 14443 & HID Prox), MIFARE	8100DSCM	SmartTRANS SP10 Read Only, HID + AWID Prox, Custom MIFARE
800-8110CM	SmartTRANS PINpad reader (ISO 14443 & HID Prox), MIFARE	8101DSCM	SmartTRANS SPK10 Read Only Keypad, HID + AWID Prox, Custom MIFARE
800-8100DF	SmartTRANS reader (ISO 14443 & HID Prox), DESFire	8100DSDF	SmartTRANS SP10 Read Only, HID + AWID Prox, Custom DESFire
800-8110DF	SmartTRANS PINpad reader (ISO 14443 & HID Prox), DESFire	8101DSDF	SmartTRANS SPK10 Read Only Keypad, HID + AWID Prox, Custom DESFire
800-8100	SmartTRANS reader (ISO 14443 & HID Prox), PIVII	N/A	Not Available. See iCLASS FIPS 201 Readers
800-8110	SmartTRANS PINpad reader (ISO 14443 & HID Prox), PIVII	N/A	Not Available. See iCLASS FIPS 201 Readers

[1] All format configurations previously ordered with GEN 1 parts are backward compatible with GEN 2. When ordering GEN 2 product, order using the same format configuration number previously used when ordering GEN 1 product.

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GEN 2 & FlexSmart

FlexSmart		SmartID Gen 2	
Part Number[1]	Description	Part Number[2]	Description
6075AKN0000	FlexSmart HID MIFARE	8030DSHM	SmartID S10 Mullion Read Only, HID MIFARE*
6075AKNxxxx	FlexSmart HID MIFARE, non default configuration	8030DSHC	SmartID S10 Mullion Read Only, HID MIFARE*
6071AKN000000	FlexSmart HID MIFARE, Keypad	8031DSHM	SmartID SK10 Mullion Read Only Keypad, HID MIFARE*
6071AKNxxxxxx	FlexSmart HID MIFARE, Keypad, non default configuration	8031DSHC	SmartID SK10 Mullion Read Only Keypad, HID MIFARE*
6076AKNxxxx	FlexSmart Custom MIFARE	8030DSCM	SmartID S10 Mullion Read Only, Custom MIFARE*
6072AKNxxxxxx	FlexSmart Custom MIFARE, Keypad	8031DSCM	SmartID SK10 Mullion Read Only Keypad, Custom MIFARE*
6077AKNxxxx	FlexSmart Custom DESFIRE	8030DSDF	SmartID S10 Mullion Read Only, Custom DESFire*
6073AKNxxxxxx	FlexSmart Custom DESFIRE, Keypad	8031DSDF	SmartID SK10 Mullion Read Only Keypad, Custom DESFire*
N/A	* For wallswitch requirements, this part must be ordered with every reader	8090AS	SmartID Single Gang Electrical Box Cover

1 xxxx signifies non-0000 configuration
2 When ordering GEN 2 SmartID product with FlexSmart custom configurations, modify the format reference number (FMxxxx) previously used when ordering FlexSmart product as follows: (a) add 02 to FMxxxx and (b) separate FM and first x with a -. Thus the FlexSmart format configuration FMxxxx turns to 02FM-xxxx when ordering SmartID GEN 2 product.

SmartID (GEN 2) & HID MIFARE

HID MIFARE		SmartID GEN2	
Part Number	Description	Part Number	Description
6055Byy0000	HID MIFARE 6055 (used for read only)	8030DSHM	SmartID S10 Read Only, HID MIFARE
6055Byyxxxx	HID MIFARE 6055 (used for read only)	8030DSHC	SmartID S10 Read Only, HID MIFARE (non-default)
6055Byy0000	HID MIFARE 6055 (used for read/write)	8030DSTC	SmartID SW100 Read/Write, T=CL Protocol
6055Byy0000	HID MIFARE 6055 (used for read-only and read/write)	N/A	Not Available
6074Ayy00	HID MIFARE 6074 (Legacy)	8030DSHM	SmartID S10 Read Only, HID MIFARE
6074Ayyxx	HID MIFARE 6074 (Legacy)	8030DSHC	SmartID S10 Read Only, HID MIFARE

[1] xxxx signifies non-0000 configuration

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SmartID® MIFARE® and DESFire® Reader Custom Format Request Form

Reader Part Numbers:

- ☐ 8030/8100 MIFARE® or DUAL MIFARE
- ☐ 8031/8101 MIFARE or DUAL MIFARE with Keypad
- ☐ 8030/8100 DESFire®
- ☐ 8031/8101 DESFire with Keypad

Description: These custom MIFARE or DESFire readers offer a complete selection of keys and card formats for adding to existing installations or facilitating companies to manage their own keys and formats. This worksheet will help you to gather information that will be required to process orders for these readers.

Specify the following

A - Custom Format Number: _____

B - New Custom MIFARE Format:

Use MAD (Yes/No): ☐ Yes ☐ No

If Yes, AID (recommended): _____

If No, Sector: _____

Block where data is located: _____

Starting bit: _____

Number of bits to output: _____

Block where data is located (2nd, DUAL Only) _____

Starting bit (2nd, DUAL Only) _____

Number of bits to output (2nd, DUAL Only) _____

Custom Keys (Yes/No): ☐ Yes ☐ No

C - New Custom DESFire Format:

Specify APPLICATION to store data: _____

File to store data: _____

Address in file where data is located: _____

Starting bit: _____

Number of bits to output: _____

Custom Keys (Yes/No) : ☐ Yes ☐ No

Security Level:

- ☐ Plain communication
- ☐ Plain communication secured by DES/3DES MACing
- ☐ Fully DES/3DES enciphered communication
- ☐ Communication mode of the file is used

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D - Output format:

☐ Clock-and-Data Number of digits:

☐ Wiegand Number of bits: _____ Left Parity: ☐ Odd ☐ Even

Calculation First Bit: _____ Last Bit: _____

Right Parity: ☐ Odd ☐ Even

Calculation First Bit: _____ Last Bit: _____

☐ Serial Number of chars: _____ Type (RS232/RS485/RS422): _____ Baud rate: _____

E - User interface:

Card reading beep (Yes/No): ☐ Yes ☐ No

Keypad key press beep (Yes/No): ☐ Yes ☐ No

LED, Left: ☐ Set LED constant green

When combining green and red are combined, the LED will set to yellow.
- ☐ Set LED green when card is read
- ☐ Set LED green when key is stroked
- ☐ Set LED constant red
- ☐ Set LED red when card is read
- ☐ Set LED red when key is stroked

LED, Right: ☐ Set LED constant green

When green and red are combined, the LED will set to yellow.
- ☐ Set LED green when card is read
- ☐ Set LED green when key is stroked
- ☐ Set LED constant red
- ☐ Set LED red when card is read
- ☐ Set LED red when key is stroked

Input pin 1 (When active to GND): Used for LED (Left/Right): ☐ Left ☐ Right
- ☐ LED off
- ☐ LED to Green
- ☐ LED to Red
- ☐ LED to Yellow

Input pin 2 (When active to GND): Used for LED (Left/Right): ☐ Left ☐ Right
- ☐ LED off
- ☐ LED to Green
- ☐ LED to Red
- ☐ LED to Yellow

Transfer all keys securely and do not place keys in this Order Guide. All custom formats require additional time to develop and test. Required is a customer sign-off before fulfilling the first order.

Once your key is encrypted using the HID Key Wrapper program, fill-in the following information:

Wrapped Keys:

Access Key Sector _____

Access Key MAD _____

Wrapping Password (Pass Phrase) :
DISTRIBUTE OVER PHONE ONLY _____

Using the HID Key Wrapper program keeps your key secure during order processing.

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FlexSmart Readers

FlexSmart® Reader Part Numbers and Options

Card Reader Description	Base Part No.	Current Rev. No.*	Color Options[1]	Hardware Options	Configuration Setting Options[2]	Card Read Mode[3]	CSN Wiegand Output Mode[4]	Custom Key[5]	Keypad[6]	Custom[7]
HID FlexSmart® MIFARE Reader, Read only Capability, Reads HID Formats in sector 1 and/or CSN, Wiegand or C&D output (RoHS Compliant)	6075	B	K = Black Arch Slim Z = No Bezel	N = Pigtail 18" (0.5 meter)	00 01 02 03	0 1 2	0 1 2 4	0	N/A	XXXX Y
HID FlexSmart® MIFARE Reader, Read Only Capability, Custom Configurable, Wiegand or C&D output (Old Part # MX200) (RoHS Compliant)	6076	A	K = Black Arch Slim Z = No Bezel	N = Pigtail 18" (0.5 meter)	00 01 02 03	4	0 1 2 4	1	N/A	XXXX Y
HID FlexSmart® DESFire® Reader, Read Only Capability, DESFire® Custom Configurable, Wiegand or C&D output (Old Part # DX200) (RoHS Compliant)	6077	A	K = Black Arch Slim Z = No Bezel	N = Pigtail 18" (0.5 meter)	00 01 02 03	3	0 1 2 4	1	N/A	XXXX Y
HID FlexSmart® MIFARE Keypad Reader, Read only Capability, Reads HID Formats in sector 1 and/or CSN, Wiegand or C&D (RoHS Compliant)	6071	A	K = Black	N = Pigtail 18" (0.5 meter)	00 01 02 03	0 1 2	0 1 2 4	0	0 9	N/A
HID FlexSmart® MIFARE Keypad Reader, Read Only Capability, Custom Configurable, Wiegand or C&D output (RoHS Compliant)	6072	A	K = Black	N = Pigtail 18" (0.5 meter)	00 01 02 03	4	0 1 2 4	1	0 9	XXXX Y
HID FlexSmart® DESFire® Keypad Reader, Read Only Capability, DESFire® Custom Configurable, Wiegand or C&D output (RoHS Compliant)	6073	A	K = Black	N = Pigtail 18" (0.5 meter)	00 01 02 03	3	0 1 2 4	1	0 9	XXXX Y
HID MIFARE Reader, Read/Write Capability, HID Formats and/or CSN, Wiegand & RS232 Output	6055	B	G = Gray B = Beige W = White K = Black	L = Long Pigtail (9 feet/3 meters)	00 04 01 05 02 06 03 07	0 1 2	0 1 2 3 4	N/A	N/A	XXXX Y

*Revision numbers and availability are subject to change without notice. Consult factory for availability. All trademarks and registered trademarks are the properties of their respective companies.

[1] Refer to the "13.56 MHz Accessories" page in this guide for additional bezel options.

[2] 6055, 6075. 6076 and 6077 Model Configuration Setting Options are as follows (factory programmed):

00 = Beep on, LED normally red, reader flashes green on tag read
01 = Beep off, LED normally red, reader flashes green on tag read
02 = Beep on, LED normally off, reader flashes green on tag read
03 = Beep off, LED normally off, reader flashes green on tag read
04 = Beep on, LED normally red, host must flash green
05 = Beep off, LED normally red, host must flash green
06 = Beep on, LED normally off, host must flash red and/or green
07 = Beep off, LED normally off, host must flash red and/or green

[3] Card Read Modes are as follows (factory programmed): Refer to the "HID FlexSmart® Reader Wiegand Output Configuration" Guide for more details.

0 = HID Data only (Sector 1, MIFARE Application Directory or Sector Location, only applies if "CSN Wiegand output Mode" = 0)
1 = Card Serial Number (CSN) Only
2 = HID MIFARE Data or CSN
3 = DESFire® Custom
4 = MIFARE Custom

[4] Card Serial Number (CSN) Wiegand Output Modes are as follows (factory programmed). Refer to the "HID MIFARE Reader Wiegand Output Configuration" Guide for more details.

0 = 32 bit 1 = 32 bit reverse (as in 6055A) 2 = 26 bit 3 = 34 bit 4 = 40 bit "Card Serial Number (CSN) Wiegand Output Modes" options 1, 2, 3, and 4 cannot be used if "Card Read Mode" = 0

[5] Custom Key: 0 = Standard keys, 1 = Custom keys

[6] Keypad: 0 = Buffer one key, no parity, 4 bit message
9 = Buffer one key, add compliment, 8 bit message (Dorado)

[7] Consult Factory.

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MIFARE® Reader Wiegand Output Configuration

Base Model Number: 6055B only

Desired Wiegand Data Output format	Comments	Model Number
Any HID/OEM format.	As encoded into MIFARE card by HID factory or field programmer.	6055BXX0000
32-bit, MIFARE Card Serial Number.	Random number burned into card chip.	6055BXX0010
32-bit, MIFARE Card Serial Number, reverse output.	Reverse output matches HID MIFARE Reader base model number: 6055A.	6055BXX0011
26-bit, derived from MIFARE Card Serial number.	ID = 16 lower bits of CSN. Reader generates fixed FC - defaults to 001, but can be custom configured.	6055BXX0012
34-bit, MIFARE Card Serial number plus beginning/ending parity.		6055BXX0013
40-bit, MIFARE Card Serial Number plus 8-bit checksum.	Checksum per Philips standard.	6055BXX0014
HID/OEM format or 32-bit (MIFARE Card Serial Number).	Reader searches for HID/OEM data in sector 1, then MAD; if no HID data found, then send CSN as configured.	6055BXX0020
HID/OEM format or (32-bit MIFARE Card Serial Number in reverse output).	Reader searches for HID/OEM data in sector 1, then MAD; if no HID data found, then send CSN as configured.	6055BXX0021
HID/OEM format or 26-bit (derived from MIFARE Card Serial Number).	Reader searches for HID/OEM data in sector 1, then MAD; if no HID data found, then send CSN as configured.	6055BXX0022
HID/OEM format or 34-bit (MIFARE CSN plus beginning/ending parity).	Reader searches for HID/OEM data in sector 1, then MAD; if no HID data found, then send CSN as configured.	6055BXX0023
HID/OEM format or 40-bit (MIFARE Card Serial number plus 8 bit checksum).	Reader searches for HID/OEM data in sector 1, then MAD; if no HID data found, then send CSN as configured.	6055BXX0024

Notes:
1. MAD = MIFARE Application Directory, a table of contents for the MIFARE card located in Sector 0.
2. CSN = Card Serial Number, a 32-bit random number burned into the chip by the chip manufacturer (not HID).
3. XX = Indicates color and hardware options. Refer to the "How to Order Guide" for complete ordering instructions.

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Custom Format MIFARE® or DESFire® Reader Ordering Guide

Reader Part Numbers:

☐ 6076 (MIFARE®) ☐ 6077 (DESFire®)
☐ 6072 (MIFARE® With Keypad) ☐ 6073 (DESFire® With Keypad)

Description: These custom MIFARE or DESFire® readers offer a complete selection of keys and formats for adding to existing installations or facilitating companies to manage their own keys and formats. This worksheet will help you to gather information that will be required to process orders for these readers.

Specify the following

A - Custom Format Number _____.

B - New Custom MIFARE Format

Specify Sector _____.

Block where data is located _____.

Starting bit _____.

Number of bits to output _____.

Custom Keys (Yes/No) _____.

C - New Custom DESFire® Format

Specify APPLICATION to store data _____.

File to store data _____.

Number of bits to output _____.

Custom Keys (Yes/No) _____.

All keys should be transferred securely and not placed in this Order Guide. All custom formats require additional time to develop and test, with a customer sign-off before the first order can be fulfilled.

Once your key is encrypted using the HID Key Wrapper program, fill-in the following information:

Wrapped Key:_____.

Wrapping password (Pass Phrase): _____.

Using the HID Key Wrapper program will keep your key secure during order processing.

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Edge Readers

Edge™ Solo Part Numbers and Options

Edge™ Solo Product Description	Base Part	Rev. No.*	Color	Hardware Configuration	Configuration Option	iCLASS Elite Key[1]
EdgePlus™ Solo ES400 Single door, IP-based stand-alone controller with built in web interface. Allows external connection to any Wiegand output (up to 128 bit ID) or most HID Clock & Data readers. Indoor use only. Stand-alone integrated access control	83000	B	K = Black	E = Externally-mounted reader	N/A	N/A
EdgeReader™ Solo ESR40 Single door, IP-based stand-alone controller with built in web interface, with Integrated R40 iCLASS reader. Indoor use only. Stand-alone integrated access control	83120	A	K = Black	I = Integrated reader	00 = Beep on, LED normally red, reader flashes green on tag read	0
EdgeReader Solo ESRP Single door, IP-based stand-alone controller with built in web interface, with Integrated RP40 Multi-Class reader. Indoor use only. Stand-alone integrated access control	83125	B	K = Black	I = Integrated reader	00 = Beep on, LED normally red, Reader flashes green on tag read	0

For Technical Support, call 800-237-7769 (Press option 4).
For Sales support, call 877-276-3346

*Revision numbers and availability are subject to change without notice.

[1] 0 = Standard (Reads all iCLASS cards with unique keys diversified from HID master key)

Example Part #:
EdgePlus Solo ES400: 83000BKE
EdgeReader Solo ESR40: 83120AKI000
EdgeReader Solo ESRP40: 83125BKI000

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Edge™ Solo Kit Part Numbers and Options

Edge™ Solo Product Description	Base Part	Rev No.*	Color	Hardware Configuration	Configuration Option	iCLASS Elite Key[1]	Reader / Credential Options
Kit EdgePlus Solo ES400 with (1) RP15 and (20) iCLASS 37bit Cards	K83000	B	K = Black	E = Externally mounted reader	N/A	N/A	PC
Kit EdgePlus Solo ES400 with (1) RP15 and (10) iCLASS 37bit Keyfobs	K83000	B	K = Black	E = Externally mounted reader	N/A	N/A	PK
Kit EdgePlus Solo ES400 with (1) R15 and (20) iCLASS 37bit Cards	K83000	B	K = Black	E = Externally mounted reader	N/A	N/A	RC
Kit EdgePlus Solo ES400 with (1) R15 and (10) iCLASS37bit Keyfobs	K83000	B	K = Black	E = Externally mounted reader	N/A	N/A	RK
Kit EdgeReader Solo ESR40 with (20) iCLASS Cards	K83120	A	K = Black	I = Integrated reader	00 = Beep on, LED normally red, reader flashes green on tag read	0	C
Kit EdgeReader Solo ESR40 with (10) iCLASS Keyfobs	K83120	A	K = Black	I = Integrated reader	00 = Beep on, LED normally red, reader flashes green on tag read	0	K
Kit EdgeReader multiCLASS Solo ESRP40 with (20) iCLASS Cards	K83125	B	K = Black	I = Integrated reader	00 = Beep on, LED normally red, reader flashes green on tag read	0	C
Kit EdgeReader Solo multiCLASS ESRP40 with (10) iCLASS Keyfobs	K83125	B	K = Black	I = Integrated reader	00 = Beep on, LED normally red, reader flashes green on tag read	0	K

For Technical Support, call 800-237-7769 (Press option 4).
For Sales support, call 877-276-3346

*Revision numbers and availability are subject to change without notice.
[1] 0 = Standard (Reads all iCLASS cards with unique keys diversified from HID master key)

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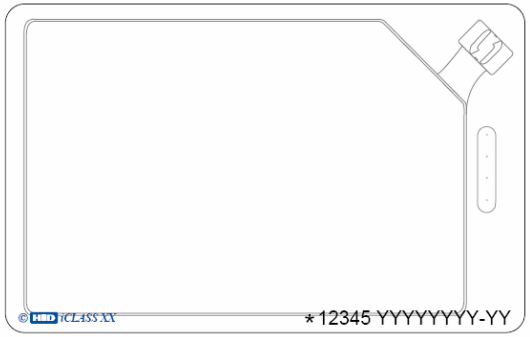
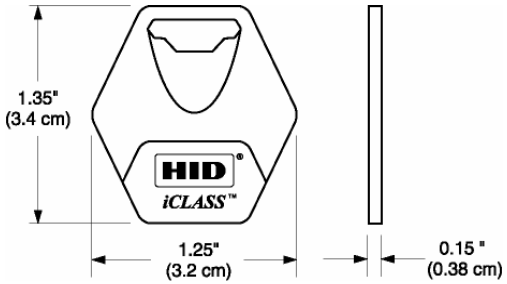
Example Part #:
Kit EdgePlus Solo ES400 with R15 and Cards: K83000BKE000-RC
Kit EdgeReader Solo ESR40 with Keyfobs: K83120AKI000-K
Kit EdgeReader Solo ESRP40 with Cards: K83125BKI000-C

Additional Card Packs and Keyfobs								
Edge Solo Card/Fob Description	Base Part	Memory	Programming	Front Packaging	Back Packaging	Card Numbering	Slot Punch	Option / Custom
Edge Solo Card Pack - (20) EdgeSolo logo iCLASS 37bit Cards	200	0	P	C	G	M	V	EDGE
Edge Solo Key Pack – (10) iClass Keyfobs 37bit	205	0	P	K	N	M	N	

FRONT

BACK





Example Part #:
Edge Solo Card Pack : 2000-PCGMV-EDGE
Edge Solo Key Pack : 2050-PKNMN

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13.56 MHz Accessories

Part No.		Description
iCLASS Reader Accessories		
6303-104-01		R10 & RW100 - 610xC Reader Mounting Plate, Any Color
6309-103-01		R15, RP15 & RW150 - 614xC Reader Mounting Plate, Any Color
6402-103-01		R30 & RW300 - 611xC Reader Mounting Plate, Any Color
6403-103-01		R40, RP40 & RW400 - 612xC Reader Mounting Plate, Any Color
6132AK		RK40 - 6130 & RWK400 - 6131 Keypad Reader Spacer Kit, Black
6132AG		RK40 - 6130 & RWK400 - 6131 Keypad Reader Spacer Kit, Gray
6132AGB		R10 - 6100 Reader Spacer Kit, Gray
6132AKB		R10 - 6100 Reader Spacer Kit, Black
6410-303-01		multiCLASS Magnetic Stripe Reader Backplate, Integrated Mag Reader and Read Head, Black.
2210-0305		Magnetic Read Head Replacement for multiCLASS Magnetic Stripe Reader
xxxxxxC		Config Card – Initialized for use with iCLASS Reader Configuration Tool. Place configurations built by tool on these cards. Valid only for iCLASS DESFire EV1 & MIFARE or Rijkspas readers.
xxxxxxP		Config Card – Programmed for specific configuration card use. Order configuration card with reader format suffix in order to get configuration card with intended results. See iclass_ev1_configuration_guide_en, v01.xls for configuration suffixes. Valid only for iCLASS DESFire EV1 & MIFARE or iCLASS Rijkspas readers.
ACS-PFL0000xx		Application Card Set – iCLASS DESFire EV1 and MIFARE. Contains reader application firmware used to read iCLASS, MIFARE DESFire EV1 and MIFARE Classic credentials (based on reader configuration). Card only required for upgrades to reader firmware.
iCL-CONF-SERV		Create custom configuration. Service is one-time fee billed to customer who has requested custom configuration of reader.
SmartID Reader Accessories		
GEN2	GEN1	
8090AS	500-8090	SmartID Single-gang Electrical Box Cover
9287AS	500-9287	SmartID Spacer Kit
0300A	800-0300	SmartID Tamper Switch
0055A	500-0055	SmartID Screw Cover
0056A	500-0056	SmartID Black Plexiglas® Cover
0057A	500-0057	SmartID 8 Pin Connector
-	500-8095	SmartTOUCH Single-gang Electrical Box Cover
HID 6055 MIFARE Reader Accessories		
5395-104-01		Classic cover, 6055 MIFARE Reader (Rev. C) - White
5395-104-02		Classic cover, 6055 MIFARE Reader (Rev. C) - Beige
5395-104-03		Classic cover, 6055 MIFARE Reader (Rev. C) - Black
5395-104-04		Classic cover, 6055 MIFARE Reader (Rev. C) - Charcoal Gray
New Look [2]		
5395-371-01		Designer cover, 6055 MIFARE Reader (Rev. C) - Black
5395-371-02		Designer cover, 6055 MIFARE Reader (Rev. C) - Charcoal Gray
5395-371-04		Designer cover, 6055 MIFARE Reader (Rev. C) - Wave Blue
5395-371-05		Designer cover, 6055 MIFARE Reader (Rev. C) - White

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Part No.	Description
HID FlexSmart® Reader Series	
FPZ3511H	HID Bezel Cover, Arch Slim Reader - Black
FPZ3517H	HID Bezel Cover, Arch Slim Reader - Beige
FPZ3521H	HID Bezel Cover, Arch Wall Switch Reader - Black
FPZ3527H	HID Bezel Cover, Arch Wall Switch Reader - Beige
FPZC1511H	HID Bezel Cover, Wave Slim Reader - Black
FPZC1514H	HID Bezel Cover, Wave Slim Reader - Blue
FPZC1521H	HID Bezel Cover, Wave Wall Switch - Black
HID FlexSmart® Reader Series (continued)	
FPZC1524H	HID Bezel Cover, Wave, Wall Switch Reader - Blue
	500-8090
	500-8095
	500-9287
	800-0300
Other	
3012AKN00	HID MIFARE® Developer's Resource Kit (Reader Kit with CD[1,2])
3012ANS00	HID MIFARE® Developer's Resource CD[1,2] Only
3013AKN00	HID MIFARE® Demo Kit (Reader Kit with Demo CD[3])
3010-101-01	HID MIFARE® Reader Demo L-Shape Stand

[1] To ensure security of the format and cards, a Software License Agreement must be signed by the final user of the 3012AKN00, 3012ANS00, and be on file at HID prior to shipment.
[2] Developer's Resource CD includes: Serial Protocol Documentation and Developer's Test Program to assist in developing custom MIFARE software applications.
[3] Demo CD Includes: MIFARE Documentation and Sample Application Program.

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Corporate 1000™ Format Request & Authorization Form

Corporate 1000 is a 35-bit card format that is developed specifically for use by individual end-user organizations. Organizations must qualify, formally enroll and be accepted by HID Global Corporation.

The Corporate 1000 Format is offered to large, multi-location, and end-user organizations which use HID access control readers and cards. In this program, the end-user has the flexibility to choose any access control hardware/software platform and any HID System Provider. As the end-user utilizing the Corporate 1000 Program, fill in your company information in TABLE I. Ensure all fields are complete for the primary and secondary (if desired) authorized contacts within your company.

TABLE I: Your Company's Primary and Secondary Contacts

Information	Primary Company Contact	Secondary Company Contact
Company Name		
Mailing Address		
City		
State/Province		
Country		
Zip/Postal Code		
Contact Name		
Title		
Contact Signature	X	X
Phone Number		
Fax Number		
E-mail Address		

Card numbers available within the Corporate 1000 format are 0 – 1,048,575.

Indicate the card number in which your first order should start: *Enter start number here*.

All card numbers following this number will be "blocked" from use. If you do not specify a card start number, your first order will start at one (1). Should you require assistance, contact your systems provider or HID directly.

Added card security:

☐ Invisible Ink ☐ Advantage® OVD ☐ Hologram ☐ Micro-fine Printing ☐ Signature Panel

Once accepted into the Corporate 1000 Program, HID shall grant a royalty free license to use the Corporate 1000 Format within your organization. Sign below to enroll in this program and to confirm your acceptance of the License Agreement.

ACCEPTANCE OF HID CREDENTIAL PROGRAM LICENSE AGREEMENT

The undersigned party hereby accepts and agrees to be bound by the terms and conditions of the HID Credential Program. License Agreement is located at www.hidglobal.com/pdfs/credential_license.pdf, pursuant to which a license is granted to the undersigned party authorizing the use of certain credential formats in connection with participation by the undersigned in the HID Corporate 1000 Program.

Dated: _____ Authorized Signature : X _____

Company Name : _____ Contact Name: _____

Title : _____

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To ensure the security of your card format, authorize any HID System Provider to purchase and manage your Corporate 1000 cards on your behalf. Enter authorized HID System Provider information in Table II, and HID System Installers in Table III.

Use this form to communicate all authorization concerning your Corporate 1000 format. It is recommended for each end-user to maintain an original copy of this form listing all authorizations.

TABLE II: Authorized HID System Providers

	Company # 1	Company # 2
Company Name		
Contact Name		
Title		
Address		
Phone Number		
Fax Number		
E-Mail Address		
Authorized End-User Name		
Authorized End-User Signature	X	X
Date		

TABLE III: Authorized HID System Installers

	Company # 1	Company # 2
Company Name		
Contact Name		
Title		
Address		
Phone Number		
Fax Number		
E-Mail Address		
Authorized End-User Name		
Authorized End-User Signature	X	X
Date		

Send to HID Global for approval and processing by faxing: 949-732-2359.

For assistance, contact your Customer Service Representative. To add or remove authorizations, submit an HID Global Corporate 1000 Change Form.

For Internal Use Only:

HID Sales Manager:		X	
	Print Name	Signature	Date
Issued Corporate 1000 Format No.:			Entered by HID Global after approval.

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iCLASS Elite Program™ Request & Authorization Form

The iCLASS Elite program includes a credential format and custom authentication key. Use any format, including the HID Corporate 1000 format. Corporate 1000 is a 35-bit card format available for qualified end-users by formal enrollment and acceptance by HID Global. A custom authentication key provides increase security. HID assigns the key to guarantee uniqueness, and programs the site-specific readers and credentials.

With the iCLASS Elite program, the end-user has the flexibility to choose any access control hardware/software platform, or any HID System Provider. As the iCLASS Elite program end-user, enter your company information in TABLE I. Ensure all fields are complete for the primary and secondary (if desired) authorized contacts within your company.

TABLE I: Your Company's Primary and Secondary Contacts

Information	Primary Company Contact	Secondary Company Contact
Company Name		
Mailing Address		
City		
State/Province		
Country		
Zip/Postal Code		
Contact Name		
Title		
Contact Signature	X	X
Phone Number		
Fax Number		
E-mail Address		

Enter the program features:
35-Bit Credential Format (if different, enter: _____) ☐ Custom Authentication Key

Once accepted into the iCLASS Elite Program, HID shall grant a royalty free license to use the iCLASS Elite Program within your organization. Sign below to enroll in this program and your acceptance of the License Agreement.

ACCEPTANCE OF HID CREDENTIAL PROGRAM LICENSE AGREEMENT

The undersigned party hereby accepts and agrees to be bound by the terms and conditions of the HID Credential Program. License Agreement is located at www.hidglobal.com/pdfs/credential_license.pdf, pursuant to which a license is granted to the undersigned party authorizing the use of certain credential formats in connection with participation by the undersigned in the HID iCLASS Elite Program.

Dated: _____ Authorized Signature : X _____
Company Name : _____ Contact Name: _____
Title : _____

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To ensure the security of your card format, authorize any HID System Provider to purchase and manage your iCLASS Elite Credential format on your behalf. Enter authorized HID System Provider information in Table II, and System Installers in Table III.

Use this form to communicate all authorization concerning your iCLASS Elite Credential format. It is recommended for each end-user to maintain an original copy of this form listing all authorizations.

TABLE II: Authorized HID System Providers

	Company # 1	Company # 2
Company Name		
Contact Name		
Title		
Address		
Phone Number		
Fax Number		
E-Mail Address		
Authorized End-User Name		
Authorized End-User Signature	X	X
Date		

TABLE III: Authorized HID System Installers

	Company # 1	Company # 2
Company Name		
Contact Name		
Title		
Address		
Phone Number		
Fax Number		
E-Mail Address		
Authorized End-User Name		
Authorized End-User Signature	X	X
Date		

Send to HID Global for approval and processing by faxing: 949-732-2359.

For assistance, contact your Customer Service Representative. To add or remove authorizations, submit an HID Global iCLASS Elite Program Change Form.

For Internal Use Only:

HID Sales Manager:	_____	X _____	_____
	Print Name	Signature	Date
Issued iCLASS Elite Program Format No.:			Entered by HID Global after approval.

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